



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

PMS-606.12

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

**FILE COPY**

June 12, 2014

JUN 23 2014

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

'14 JUN 12 P 1:33

PROQ:V...

To: Ms. Jessica Wooley, Director  
Office of Environmental Quality Control

From: Duane Y. Kashiwai, Public Works Administrator  
Facilities Development Branch

A handwritten signature in black ink, appearing to read "DK".

Subject: Waialua Elementary School Library / Media Center  
DOE Job No. Q76002-07  
Tax Map Key: 6-7-001: 010  
Portion Kamananui, North Shore District, Oahu, Hawaii

The Department of Education, State of Hawaii, has reviewed the Draft Environmental Assessment for the subject project and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish this determination in the next Environmental Notice.

A printed copy of the Draft Environmental Assessment and a CD with the document in .pdf format are attached. The Environmental Notice publication form will be e-mailed to Office of Environmental Quality Control.

Should you have any questions, please contact Ryan Yamamoto, Project Coordinator of the Facilities Development Branch at 586-0966.

DYK:RY:lm

c: Ryan Yamamoto, Facilities Development Branch

**AGENCY ACTIONS  
SECTION 343-5(B), HRS  
PUBLICATION FORM (FEBRUARY 2013 REVISION)**

**Project Name** Waialua Elementary School Library/Media Center  
**Island:** O'ahu  
**District:** Waialua  
**TMK:** 6-7-001: 010  
**Permits:** Special Management Area, State Land Use District Boundary Amendment or State Special Use Permit, Building Permit, Certificate of Occupancy, Waiver (Building Height)

**Proposing/Determination Agency:** Department of Education, State of Hawaii  
Facilities Development Branch  
1151 Punchbowl Street, Room 501  
Honolulu, HI 96813

**Mr. Ryan Yamamoto**  
Telephone: 586-0966

**Accepting Authority:**  
*(for EIS submittals only)*

**Consultant:**

**Gerald Park Urban Planner**  
95-595 Kanamee Street #324  
Mililani, HI 96789

**Gerald Park**  
Telephone: 625-9626

**Status (check one only):**

- DEA-AFNSI** Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); a 30-day comment period ensues upon publication in the periodic bulletin.
- FEA-FONSI** Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); no comment period ensues upon publication in the periodic bulletin.
- FEA-EISPN** Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); a 30-day consultation period ensues upon publication in the periodic bulletin.
- Act 172-12 EISPN** Submit the proposing agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.
- DEIS** The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); a 45-day comment period ensues upon publication in the periodic bulletin.
- FEIS** The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may

send both the summary and PDF to [oeqchawaii@doh.hawaii.gov](mailto:oeqchawaii@doh.hawaii.gov)); no comment period ensues upon publication in the periodic bulletin.

\_\_\_ Section 11-200-23  
Determination

The accepting authority simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the proposing agency. No comment period ensues upon publication in the periodic bulletin.

\_\_\_ Section 11-200-27  
Determination

The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

\_\_\_ Withdrawal (explain)

**Summary** (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

**The Waialua Elementary School Library/Media Center is almost completed. This document is an after the fact Draft Environmental Assessment prepared to comply with the substantive and procedural requirements of Chapter 343, Hawaii Revised Statutes and Title 11, Chapter 200, Hawaii Administrative Rules.**

**Because construction is almost completed, short-term environmental impacts are considered moot. In the long-term, the new facility will provide students, faculty, and staff a modern, spacious environment for reading, research, test-taking, tutoring, and grade level gatherings.**

**The Media Center will engage students in learning computer skills and introduce students to video and multi-media production. It is anticipated that the proposed curricula and hands-on training will provide learned skills that students can apply within the school, upper grade levels, the community, and future occupations.**

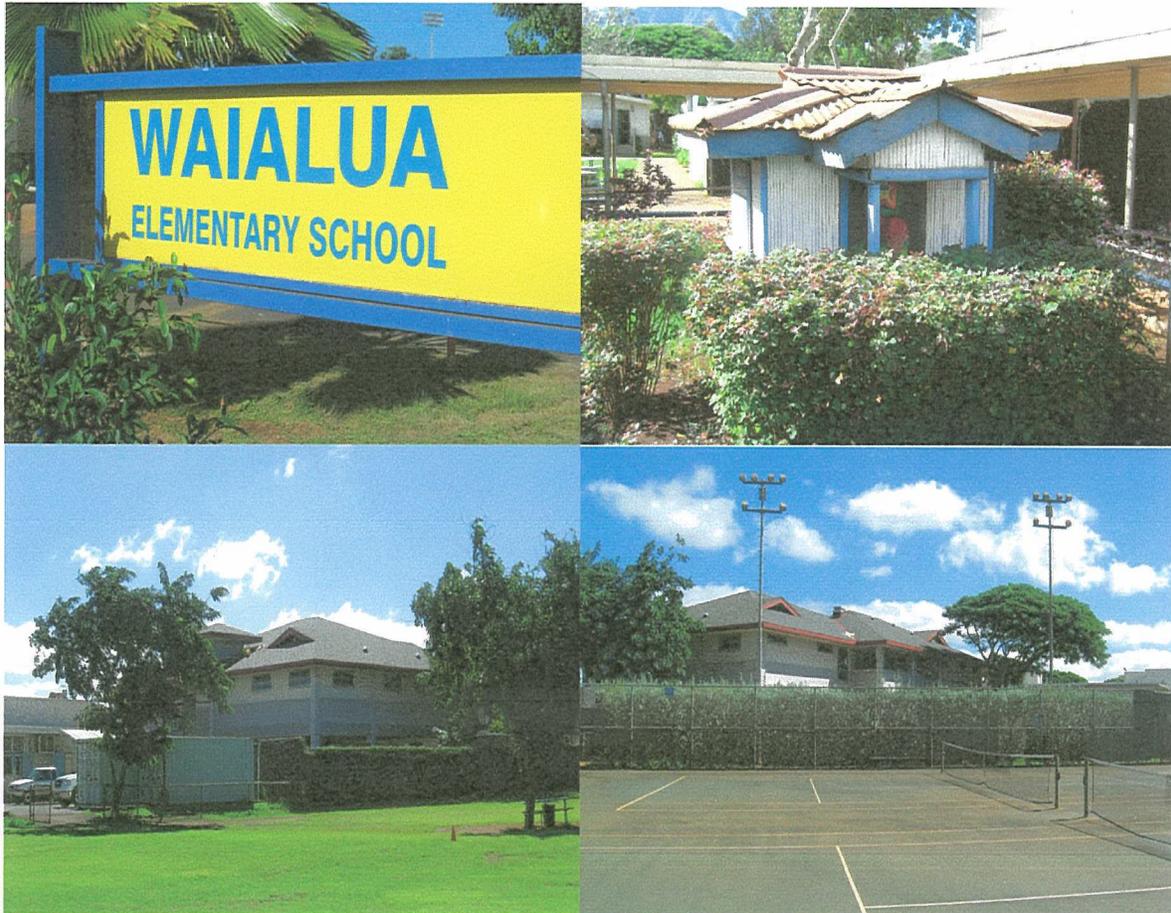
**DRAFT ENVIRONMENTAL ASSESSMENT**

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**WAIALUA ELEMENTARY SCHOOL  
LIBRARY / MEDIA CENTER**

*Portion of Kamananui, District of Waialua, O'ahu, Hawai'i*

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Prepared for

Department of Education  
State of Hawai'i  
Facilities Development Branch  
1151 Punchbowl Street, Room 501  
Honolulu, Hawai'i 96813

June 2014

## DRAFT ENVIRONMENTAL ASSESSMENT

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# **WAIALUA ELEMENTARY SCHOOL LIBRARY / MEDIA CENTER**

*Portion of Kamananui, District of Waialua, O'ahu, Hawai'i  
Department of Education Job No. Q76002-07*

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Prepared in Partial Fulfillment of Chapter 343, Hawai'i Revised Statutes and  
Title 11, Chapter 200, Hawai'i Administrative Rules

### **Prepared for**

Department of Education  
State of Hawai'i  
Facilities Development Branch  
1151 Punchbowl Street, Room 501  
Honolulu, Hawai'i 96813

### **Prepared by**

Gerald Park Urban Planner  
95-595 Kaname'e Street #324  
Mililani, Hawai'i 96789

Kober Hanssen Mitchell Architects  
77 Merchant Street, Suite  
Honolulu, Hawai'i 96813

June 2014

## PROJECT PROFILE

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Proposed Action: Waialua Elementary School  
Library / Media Center  
Job No. Q76002-07

Location: Portion of Kamananui, District of Waialua,  
O'ahu, Hawai'i

Address: 67-020 Waialua Beach Road  
Waialua, Hawai'i 96791

Proposing/Determining Agency: Department of Education  
Facilities Development Branch  
1151 Punchbowl Street, Room 501  
Honolulu, Hawai'i 96813

Tax Map Key: 6-7-001: 010  
Land Area: 6.994 acres  
Landowner: City and County of Honolulu  
State of Hawai'i

Existing Use: Public Elementary School  
State Land Use Designation: Agricultural  
O'ahu General Plan: Rural  
*Sustainable Communities Plan (SCP)*: North Shore  
SCP Land Use Map: Agriculture  
Zoning: AG-1 Restricted Agriculture District  
Special Management Area: Within Special Management Area

Need for Assessment: Chapter 343, Hawai'i Revised Statutes  
§343-5 (a)(1) Propose the use of state or  
county lands or the use of state or county  
funds.

Anticipated Determination: Finding of No Significant Impact

Contact Person: Ryan Yamamoto, Project Coordinator  
Department of Education  
Facilities Development Branch  
PO Box 2360  
Honolulu, Hawai'i 96804  
  
Telephone: 586-0966

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## SITE PHOTOGRAPHS

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<b>Photograph</b>	<b>Title</b>	<b>Page</b>
1	School Sign	Cover
2	"Nipa Hut"	Cover
3	View from Goodale Avenue	Cover
4	View from Tennis Courts	Cover

The Department of Education, State of Hawai'i, proposes to construct a new school library at Waialua Elementary School located in the *ahupua'a* of Kamananui (portion) District of Waialua, O'ahu, Hawai'i. Waialua Elementary School ("Waialua Elementary") is bounded by Waialua Beach Road to the north and east, residential and commercial lots and uses to the south, and Waialua District Park to the west. A Location Map is shown in Figure 1.

On campus, the site of the library generally is bounded by the school's Cafeteria and Dining Room on the north, two portable classroom buildings to the south, Building "A" to the east, and recreation facilities (tennis courts) at Waialua District Park to the west. The tennis courts are from the school by chain link fencing and hedge plantings.

The school site bears Tax Map Key 6-7-001: 010 encompassing an area of 6.994 acres. A Tax Map is shown in Figure 2.

### **A. Purpose and Need for the Project**

The purpose of the project is to replace an existing school library with a modern facility with up to date technology and space to support the educational needs of students and the curriculum requirements of instructors. Occupying a portion of a classroom building (Building "C") that was constructed in 1969 the library lacks sufficient space for housing a collection of books, periodicals, reference materials, general interest materials, and staff working areas. In addition, the building was not designed to protect the collection from outside humidity, moisture, dust, and salt air.

### **B. Technical Characteristics**

#### **1. Library and Media Wing**

A rectangular-shaped building with a footprint of approximately 8,545 gross square feet is proposed (See Figure 3). Space in the two-story structure is allocated for a covered play area on the ground level and a school library and media center on the second level.

A covered play court is provided on the ground level. Place for students when the days are hot or during inclement weather. The play court measures approximately 7,632 square feet. Space is also set aside for a mechanical room / elevator, electrical closet, storage, and two separate stairways to the second level (913 square feet). A Ground Floor Plan is shown on Figure 4.

In plan view, the second level is separated into three principal spaces. The proposed library is placed on the west wing and the media center on the east wing. Both are connected by a breezeway spanning the width of the second level. Space in the library has been allocated for a circulation desk, reading/bookstacks/, storytelling area, workroom / production, student conference room, librarian's office, professional staff room, three restrooms, and a utility closet. The floor area is approximately 4,180 square feet.

The media center provides separate rooms for multi-media production, a media control center, sound / recording room, a computer resource center, and a technical coordinator's

office. The media center floor area is approximately 2,340 square feet. An architectural space program is shown in Table 1 and the Second Floor Plan in Figure 5.

Table 1. Architectural Space Program

<b>Program Areas</b>	<b>Square Feet</b>
<b>A. Library</b>	2,850
• Circulation Desk (256 SF)	
• Reading Bookstack (1,912 SF)	
• Periodicals (220 SF)	
• Storytelling Area (462 SF)	
Workroom/Production	566
Offices	144
Professional Staff Material	187
Student Conference Rooms	232
General Utility	45
Restrooms (3)	156
<b>B. Media Center</b>	
Media Control Room	261
Technical Coordinator Office	518
Computer Resources Center	1,229
Soundroom	83
Subtotal: Programmed Areas	6,271
<b>Non-Program Areas</b>	
Multi-Media Production Room	250
Breezeway	352
Lanai 1	400
Lanai 2	482
Subtotal Non-program Areas	1,484
<b>Total Net Floor Area</b>	<b>6,666</b>

Source: Kober Hanssen Mitchell Architects, Inc. 2010.

The space program is based on a design enrollment of 600 students.

The structure will be constructed on a poured in place concrete foundation and floor and poured in place concrete columns with pre-stressed tees and toppings. Cement masonry units will enclose utility rooms on the ground floor and interior spaces and sections of the exterior wall on the second floor. Wood trusses will support a gable roof covered with asphalt shingles.

The height of the building is approximately 35'-3" measured from finish grade to top of roof ridge. Exterior Elevations are shown on Figures 6a and 6b. At the design height, the building exceeds the 25'-0" height limit for the zoning district. A waiver to exceed the height limit will be requested from the Department of Planning and Permitting, City and County of Honolulu.

The building will incorporate sustainable features such as low flow plumbing systems, low e glazing, and energy efficient mechanical and building systems. The building is not designed for Leadership in Energy and Environmental Design (LEED) rating.

The second level will be air conditioned for the comfort of the staff, students, and faculty. In addition, a controlled environment will help to control mildew and mold and protect the collection against humidity, salt air, and dust. Air conditioning pumps, compressors, chillers, and associated mechanical equipment will be placed in a walled enclosure behind the library.

The building will not be equipped with a fire sprinkler system.

## **2. Circulation and Off-Street Parking**

Changes to on-campus vehicle circulation patterns and parking configurations are not proposed.

## **3. Infrastructure**

Potable water will be supplied through a new 2" service line from the existing on-campus water system.

A new 8" wastewater main will be installed between the Library and the Cafeteria. Existing wastewater lines crossing the site of the library will be cut and plugged (or removed) and rerouted to the new 8" waste line. Wastewater will discharge into an existing individual wastewater system (IWS) located adjacent to and northwest of the proposed Library. The IWS has a design capacity of 12,000 gallons per day.

Electrical power will be provided from a new electrical transformer that is separate to the transformer serving the school.

A Site and Utility Plan is shown in Figure 7.

A fire hydrant will be installed at the end of the loading zone for the cafeteria near the western edge of campus. An 8" fire service line will connect the new fire hydrant to an existing fire line on the eastern side of the campus. Approximately 480 lineal feet of piping will be installed traversing beneath an existing lawn and play area, driveways, and parking areas at the front of the school.

## **4. Demolition**

Existing sidewalks, irrigation lines, wastewater lines, water lines, and electrical systems within the construction limits will be demolished, cut, plugged and abandoned in place, or relocated. An existing portable classroom will be relocated next to a building labeled "Museum" on the site plan.

One tree will be removed, two existing trees (a gold tree and kou tree) relocated to different locations near the library, and three trees (monkeypod, shower, and plumeria) left in place.

An existing play structure (or equipment) will be relocated to a lawn area fronting Building "A" next to a parking area.

## **5. Grading**

The library site will be grubbed of vegetation and graded to a finished elevation of between 13.4 to 14 feet (top of pavement). Based on spot elevations, the high side is the southeast corner and the low side the northwest corner.

The area to be disturbed by construction is estimated at 0.48 acres and the area to be graded approximately 0.13 acres. Earthwork estimates are 15 cubic yards of excavation and 30 cubic yards of embankment. A Grading Plan is shown on Figure 8.

Earthwork quantities for the fire line is estimated at 160 cubic yards of excavation and 98 cubic yards of trench backfill.

## **6. Landscaping**

Areas around the library will be grassed, hedge material spot planted, and two trees relocated. Planted areas will be irrigated by an underground irrigation system. A Landscape Planting Plan is shown in Figure 9.

The existing play structure will be relocated to a lawn area fronting Building "A". An approximately 4,500 SF area will be graded and four picnic tables/benches repositioned to accommodate the structure. The structure will be installed with a resilient surface for user safety and ease of maintenance.

## **C. Economic Characteristics**

Construction costs are estimated at \$3.6 million and will be funded by the State of Hawai'i.

Construction commenced in June 2010 and will be completed by August 2014. The facility should be ready for occupancy in September 2014.

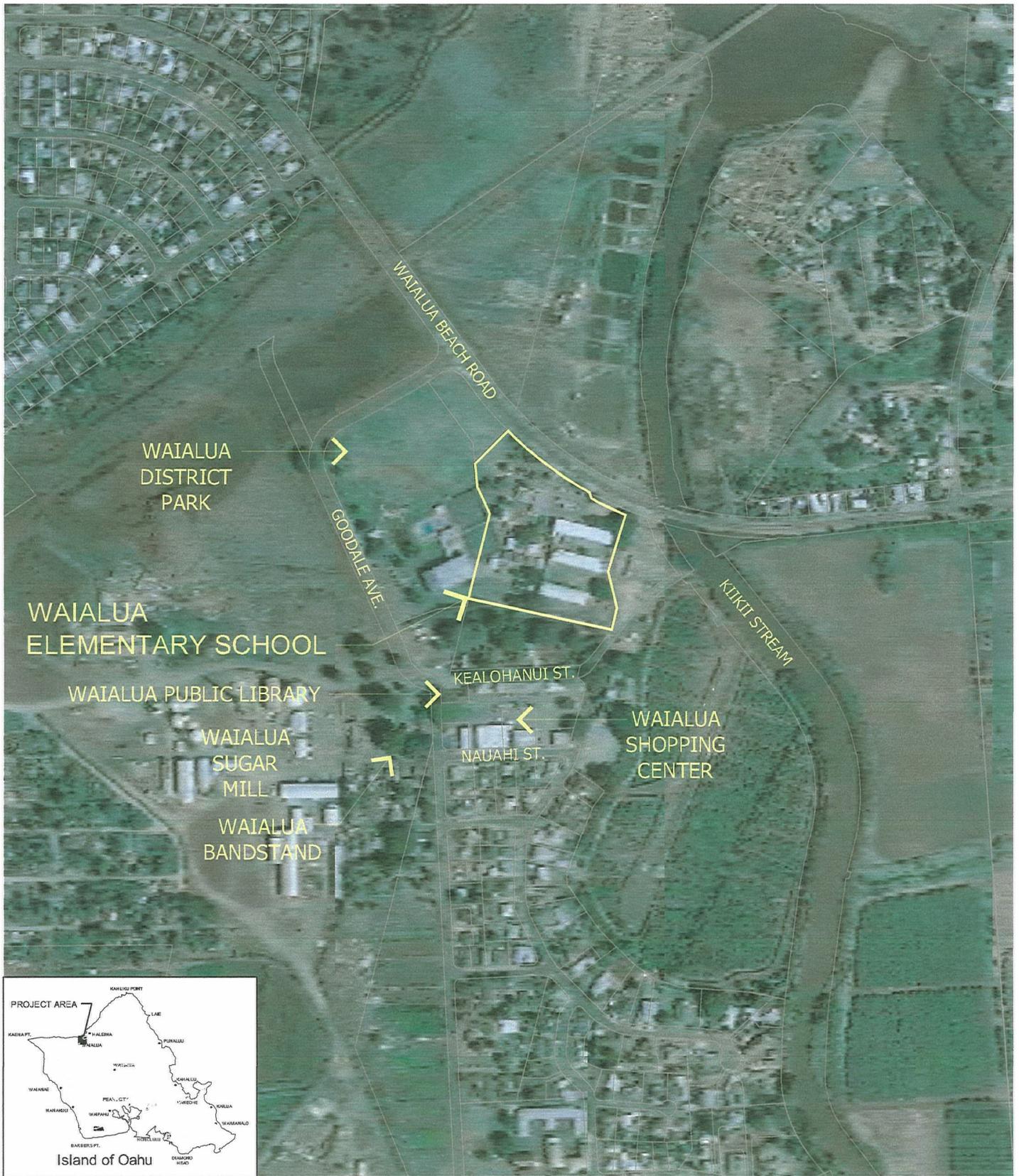
The 6.994 acre lot is owned by the City and County of Honolulu and the State of Hawai'i. Based on the contributed cost in acquiring the property, the City and County of Honolulu owns an estimated 77.5% of the lot (5.42 acres) and the State of Hawai'i an estimated 22.5% (1.57 acres).

## **D. Social Characteristics**

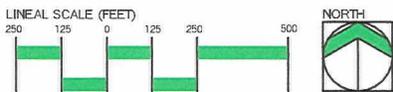
The library and media center will have maximum occupancy loads of 60 and 50 persons, respectively.

The existing library is staffed by a full-time librarian and a part-time assistant. Staffing requirements for the new library have not yet been determined.

The Library and Media Center and relocated play structure will be ADA ("Americans with Disability Act") accessible and compliant with the guidelines for the respective structure and play area facilities. An elevator will provide vertical access between floors.

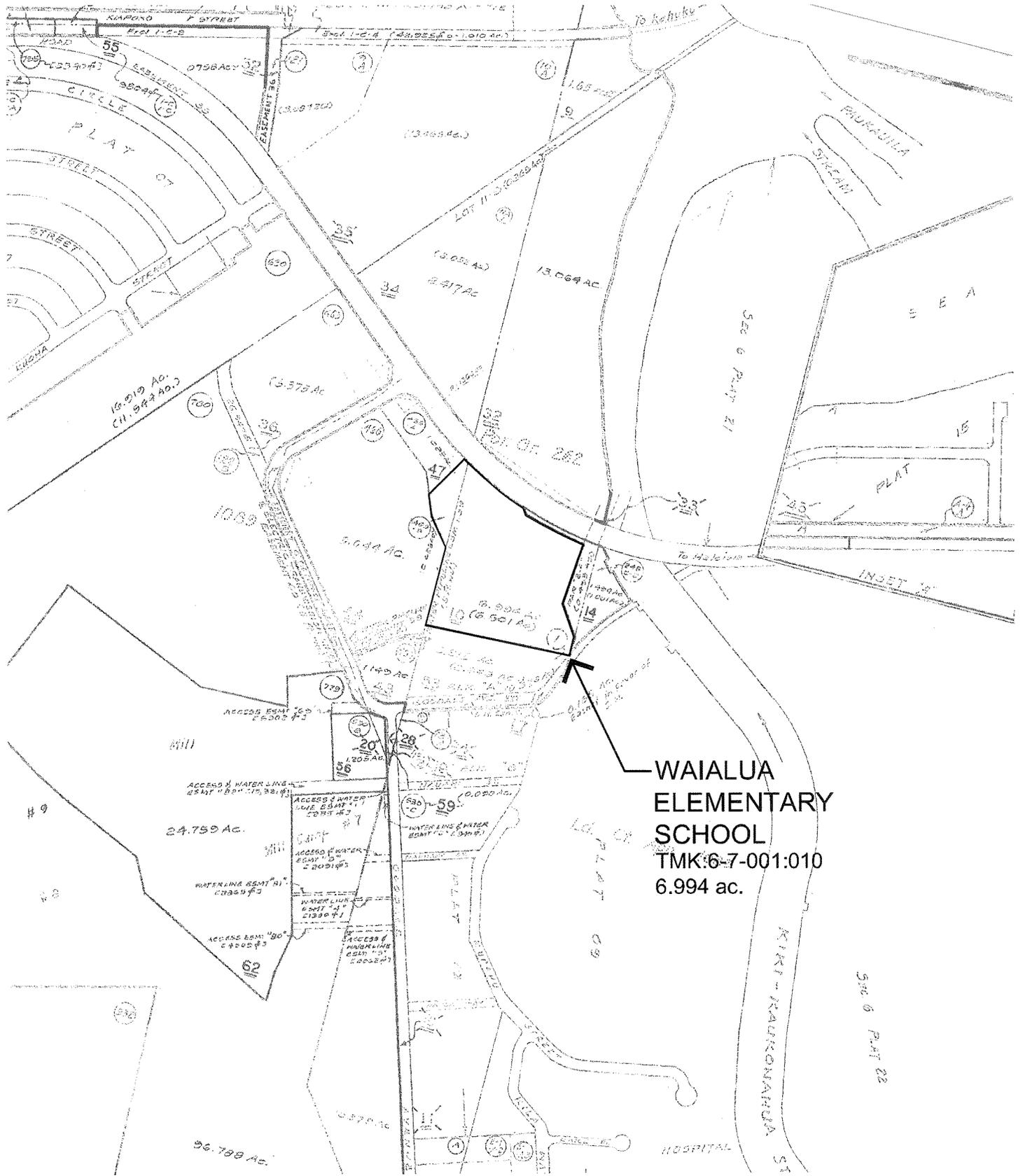


Source: USGS, Waianae Quadrangle

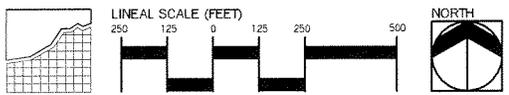


Portion of Kamananui, District of Waialua, O'ahu

Figure 1  
 Location Map  
 Waialua Elementary School Library / Media Center



Source: Tax Map, City & County of Honolulu



Gerald Park  
Urban Planner  
July 2012

Portion of Kamanani, District of Waialua, O'ahu

Figure 2  
Tax Map  
Waialua Elementary School Library / Media Center

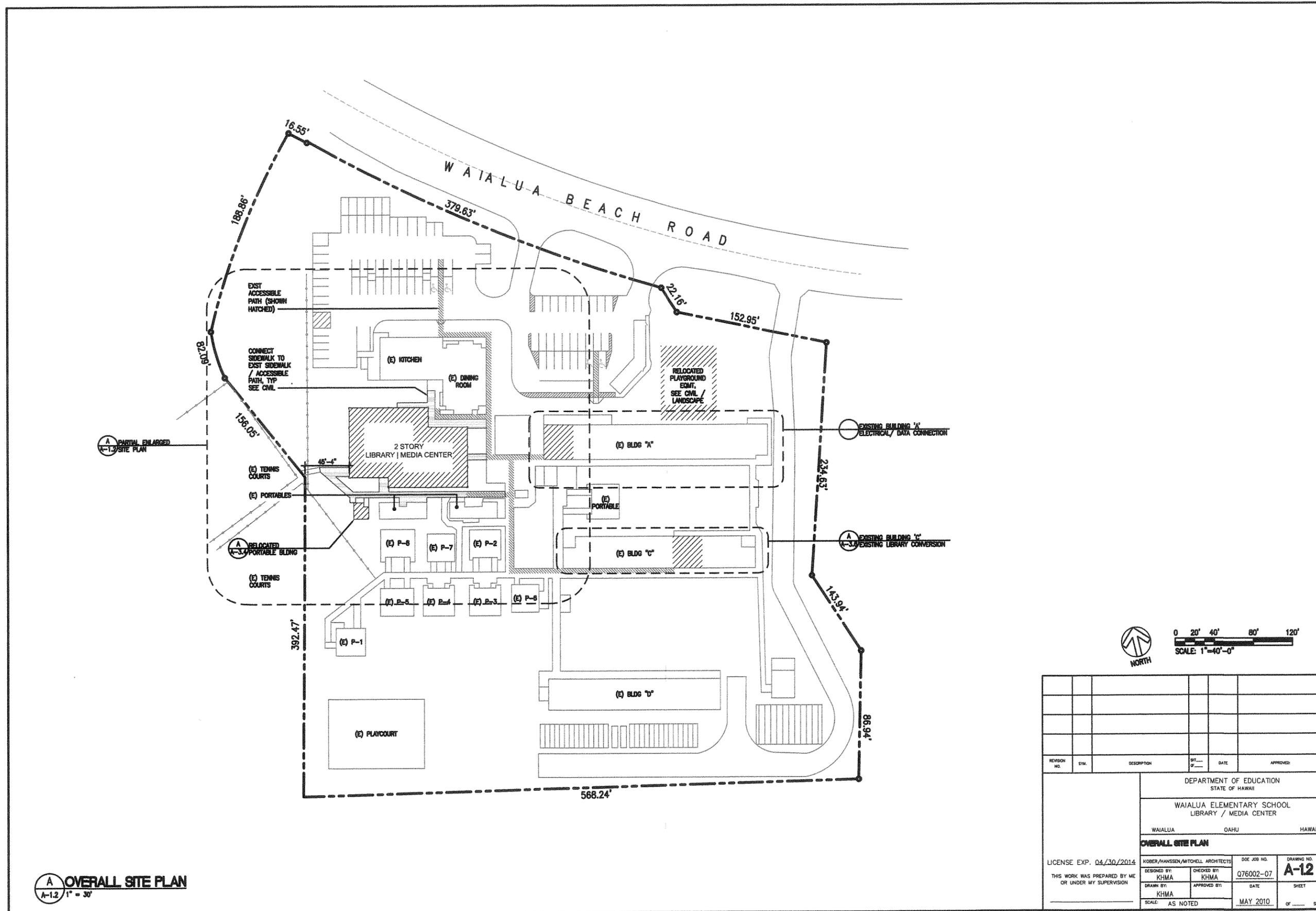
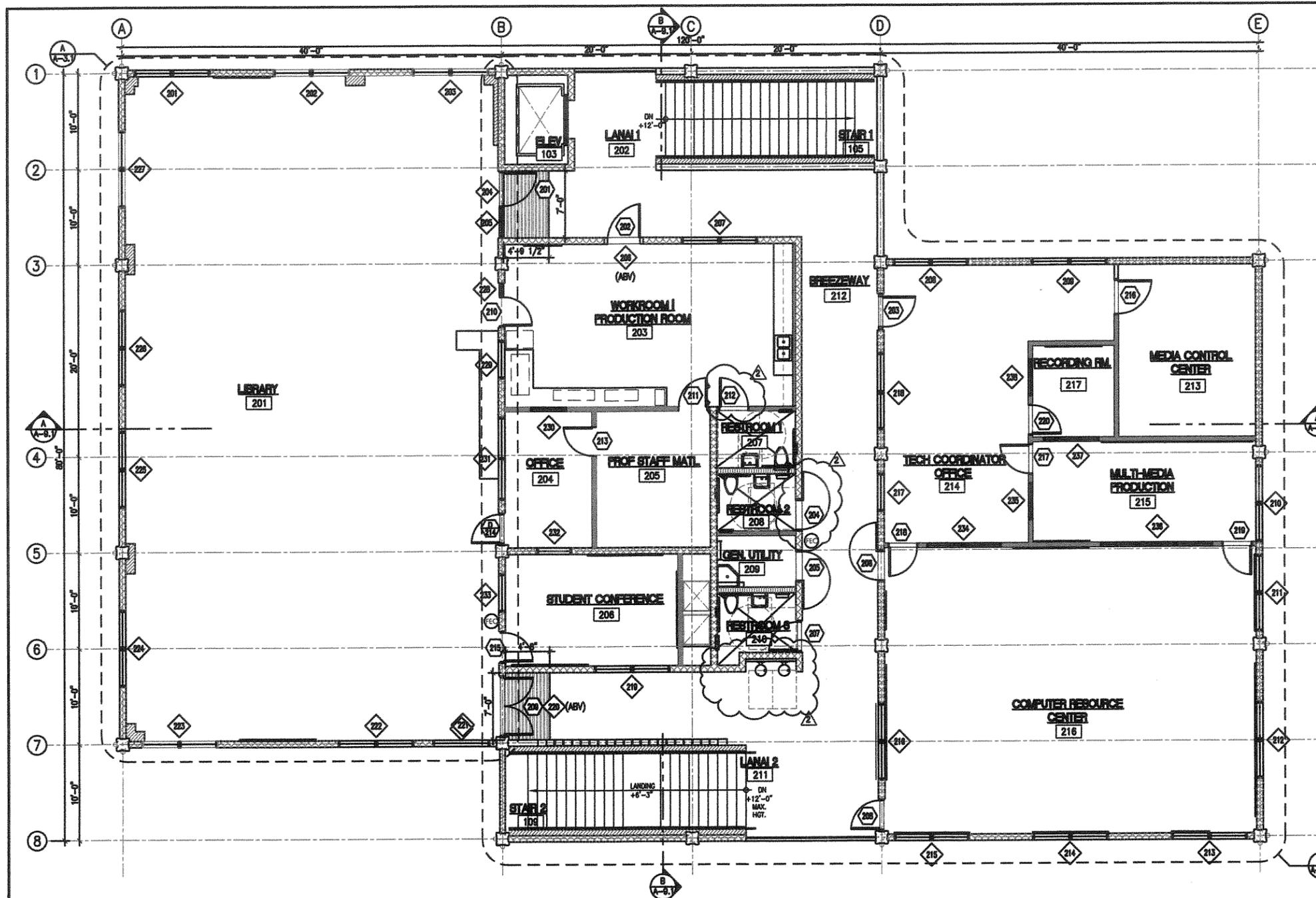


Figure 3



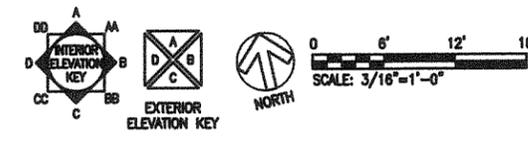


**A OVERALL SECOND FLOOR PLAN**  
A-22 3/16" = 1'-0"

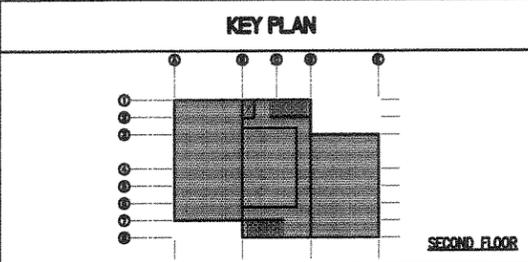
PROGRAM AREA TABULATION						
500 STUDENT DESIGN ENROLLMENT						
I. PROGRAM AREAS						
RM NO.	RM NO. (Asst. Name)	ROOM NAME	PADE (Stat. sq)	Revised PADE (Stat. sq)	ACTUAL (Stat. sq)	REMARKS
201	-	LIBRARY	3,242	-	2,850	-
-	-	CIRCULATION DESK	180	-	256	-
-	-	READING/BOOKSTACK	2,446	-	1,812	-
-	-	PERIODICAL	216	-	220	-
-	-	STORYTELLING AREA	400	-	462	-
203	-	WORKROOM/PRODUCTION	600	-	566	-
204	-	OFFICE	132	-	144	-
205	-	PROF STAFF MAIL	209	-	187	-
206	-	STUDENT CONFERENCE	252	-	232	-
207	-	RESTROOM 1	70	-	50	-
208	-	RESTROOM 2	70	-	50	-
209	-	GENERAL UTILITY	40	-	45	-
210	-	RESTROOM 3	70	-	56	-
213	-	MEDIA CONTROL CENTER	450	-	261	-
214	-	TECH COORDINATOR OFFICE	300	480	518	INC STORAGE
216	-	COMP RESOURCE CNTR	1,200	-	1,229	-
-	-	GROUP ACTIVITY	900	-	-	-
-	-	COMMON ACTIVITY	100	-	-	-
-	-	CIRCULATION AREA	200	-	-	-
217	-	SOUND ROOM	-	-	83	-
SUBTOTAL PROGRAMMED AREAS			-	6,815	6,271	-

II. NON-PROGRAM AREAS						
202	-	LANA 1			400	-
211	-	LANA 2			482	-
212	-	BREEZEWAY			352	-
215	-	MULTI-MEDIA PRODUCTION	150		250	-
SUBTOTAL NON-PROGRAMMED AREAS					1,503	-
TOTAL NET FLOOR AREA					6,666	-
TOTAL GROSS FLOOR AREA (INC VERT. CIRCULATION)					8,404	-

**WALL LEGEND:**  
 [Symbol] 6" CMU WALL (WALL TYPE 1)  
 [Symbol] 3 5/8" MET STUD W/ INSULATION (WALL TYPE 2)  
 [Symbol] 6" MET STUD PLUMBING WALL (WALL TYPE 3)  
 [Symbol] 6" MET FURRING WALL (WALL TYPE 4)



2	DCAB COMMENT				
REVISION NO.	SYM.	DESCRIPTION	BY	DATE	APPROVED



LICENSE EXP. 04/30/2014

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DEPARTMENT OF EDUCATION  
STATE OF HAWAII

WAILUA ELEMENTARY SCHOOL  
LIBRARY / MEDIA CENTER

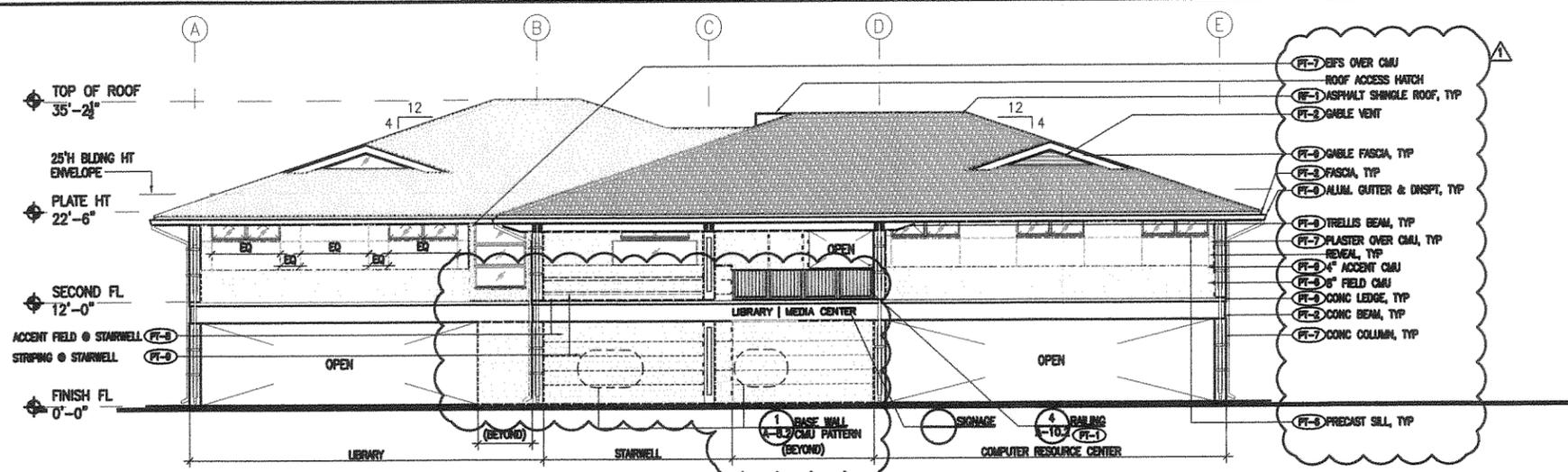
WAILUA OAHU HAWAII

**OVERALL SECOND FLOOR PLAN**

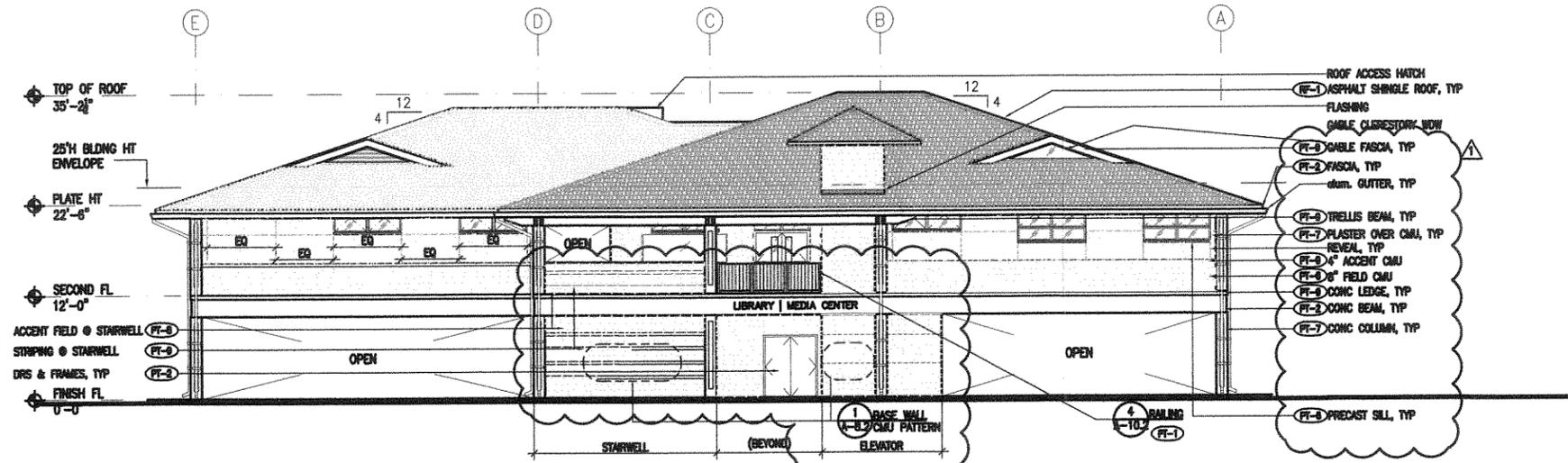
KOBER/MANSEN/MITCHELL ARCHITECTS  
DESIGNED BY: KHMA  
DRAWN BY: KHMA  
SCALE: AS NOTED

DOE JOB NO. 076002-07  
DRAWING NO. **A-22**  
DATE: MAY 2010

Figure 5



**A SOUTH ELEVATION**  
A-B.1 1/8" = 1'-0"



**B NORTH ELEVATION**  
A-B.1 1/8" = 1'-0"

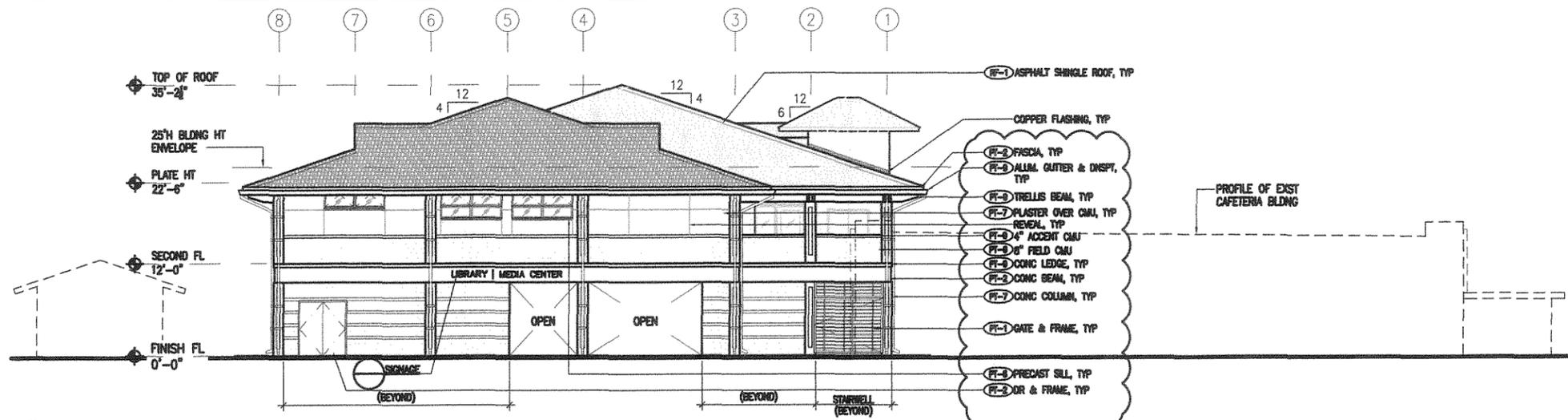
- PT-7 EPS OVER CMU
- ROOF ACCESS HATCH
- RF-1 ASPHALT SHINGLE ROOF, TYP
- PT-2 GABLE VENT
- PT-3 GABLE FASCIA, TYP
- PT-3 FASCIA, TYP
- PT-3 ALUM. GUTTER & UNSPL, TYP
- PT-3 TRELLIS BEAM, TYP
- PT-7 PLASTER OVER CMU, TYP
- REVEAL, TYP
- PT-3 4" ACCENT CMU
- PT-3 8" FIELD CMU
- PT-3 CONC LEDGE, TYP
- PT-3 CONC BEAM, TYP
- PT-7 CONC COLUMN, TYP
- PT-3 PRECAST SILL, TYP

- ROOF ACCESS HATCH
- RF-1 ASPHALT SHINGLE ROOF, TYP
- FLASHING
- GABLE CLERESTORY NOW
- PT-3 GABLE FASCIA, TYP
- PT-3 FASCIA, TYP
- alum. GUTTER, TYP
- PT-3 TRELLIS BEAM, TYP
- PT-7 PLASTER OVER CMU, TYP
- REVEAL, TYP
- PT-3 4" ACCENT CMU
- PT-3 8" FIELD CMU
- PT-3 CONC LEDGE, TYP
- PT-3 CONC BEAM, TYP
- PT-7 CONC COLUMN, TYP
- PT-3 PRECAST SILL, TYP

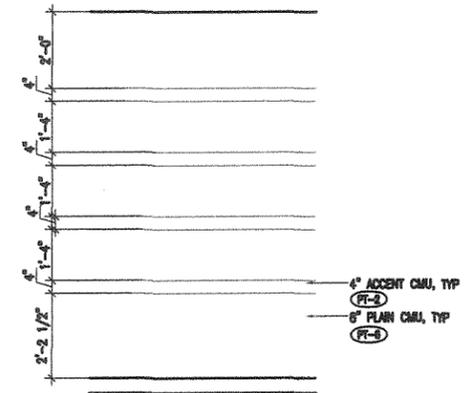
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

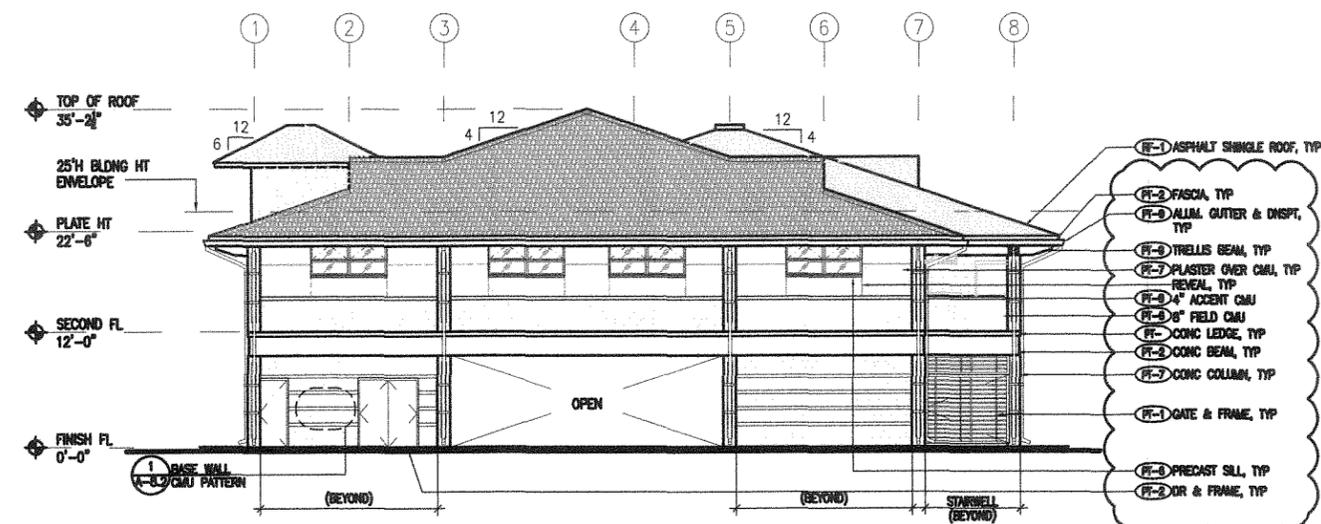
		DEPARTMENT OF EDUCATION STATE OF HAWAII	
		WAIALUA ELEMENTARY SCHOOL LIBRARY / MEDIA CENTER	
WAIALUA		OAHU	HAWAII
<b>EXTERIOR ELEVATIONS</b>			
LICENSE EXP. 04/30/2014		KOBER/HANSEN/MITCHELL ARCHITECTS	DOE JOB NO. 076002-07
DESIGNED BY: KHMA	CHECKED BY: KHMA	DATE: MAY 2010	DRAWING NO. <b>A-81</b>
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION		APPROVED BY: KHMA	SHEET
SCALE: AS NOTED		DATE: MAY 2010	OF _____ SHEET



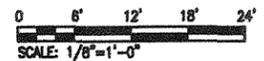
**A EAST ELEVATION**  
A-8.2 1/8" = 1'-0"



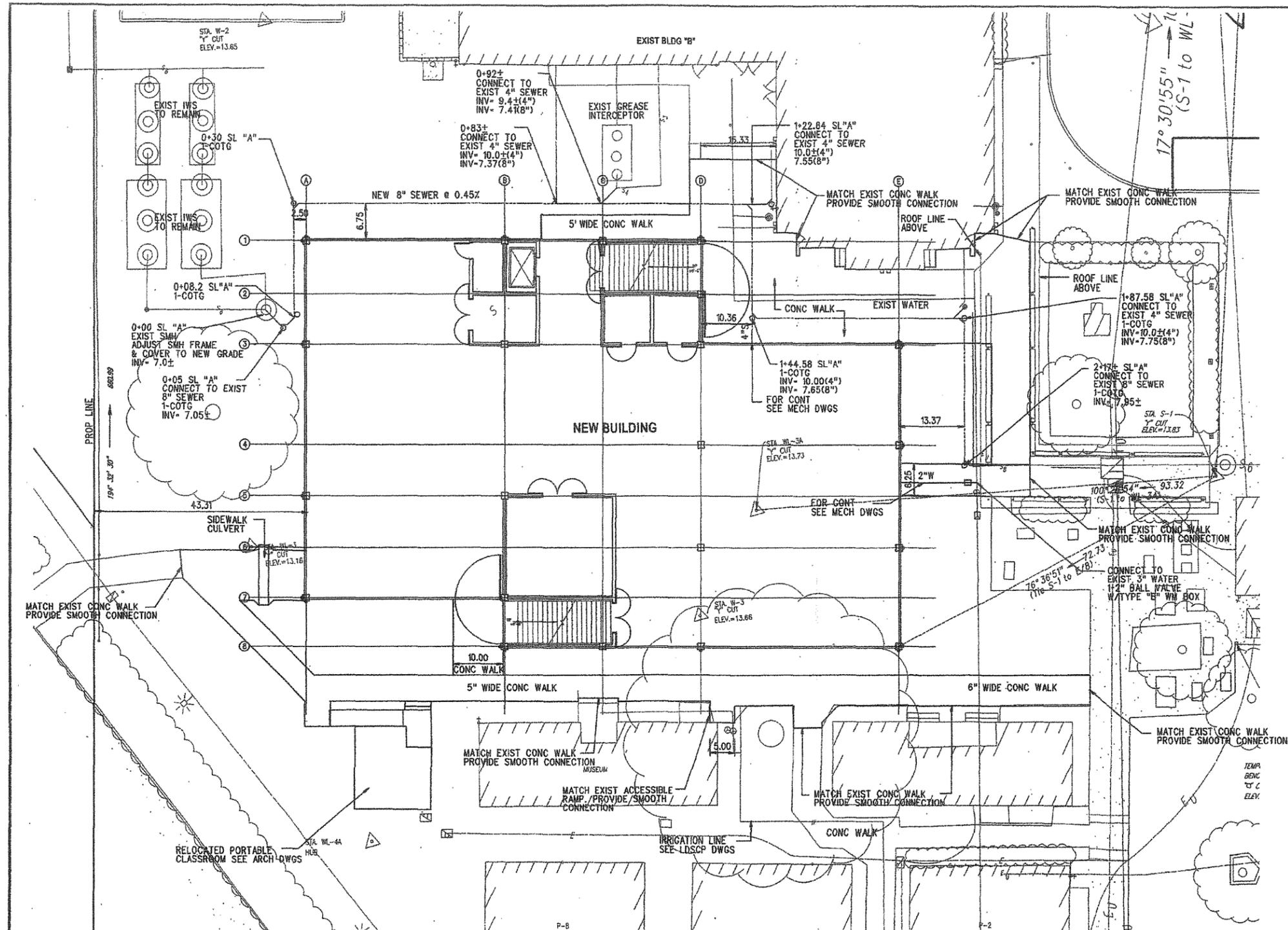
**1 CMU PATTERN DETAIL**  
A-8.2 1/8" = 1'-0"



**B WEST ELEVATION**  
A-8.2 1/8" = 1'-0"



REVISION NO.		SYM.	DESCRIPTION	BY	DATE	APPROVED
						
DEPARTMENT OF EDUCATION STATE OF HAWAII WAIALUA ELEMENTARY SCHOOL LIBRARY / MEDIA CENTER WAIALUA OAHU HAWAII						
<b>EXTERIOR ELEVATIONS</b>						
LICENSE EXP. 04/30/2014		DESIGNED BY: KHMA		CHECKED BY: KHMA		DOE JOB NO. Q76002-07
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION		DRAWN BY: KHMA		APPROVED BY:		DRAWING NO. <b>A-8.2</b>
SCALE: AS NOTED		MAY 2010		DATE		SHEET
						OF _____ SHEET

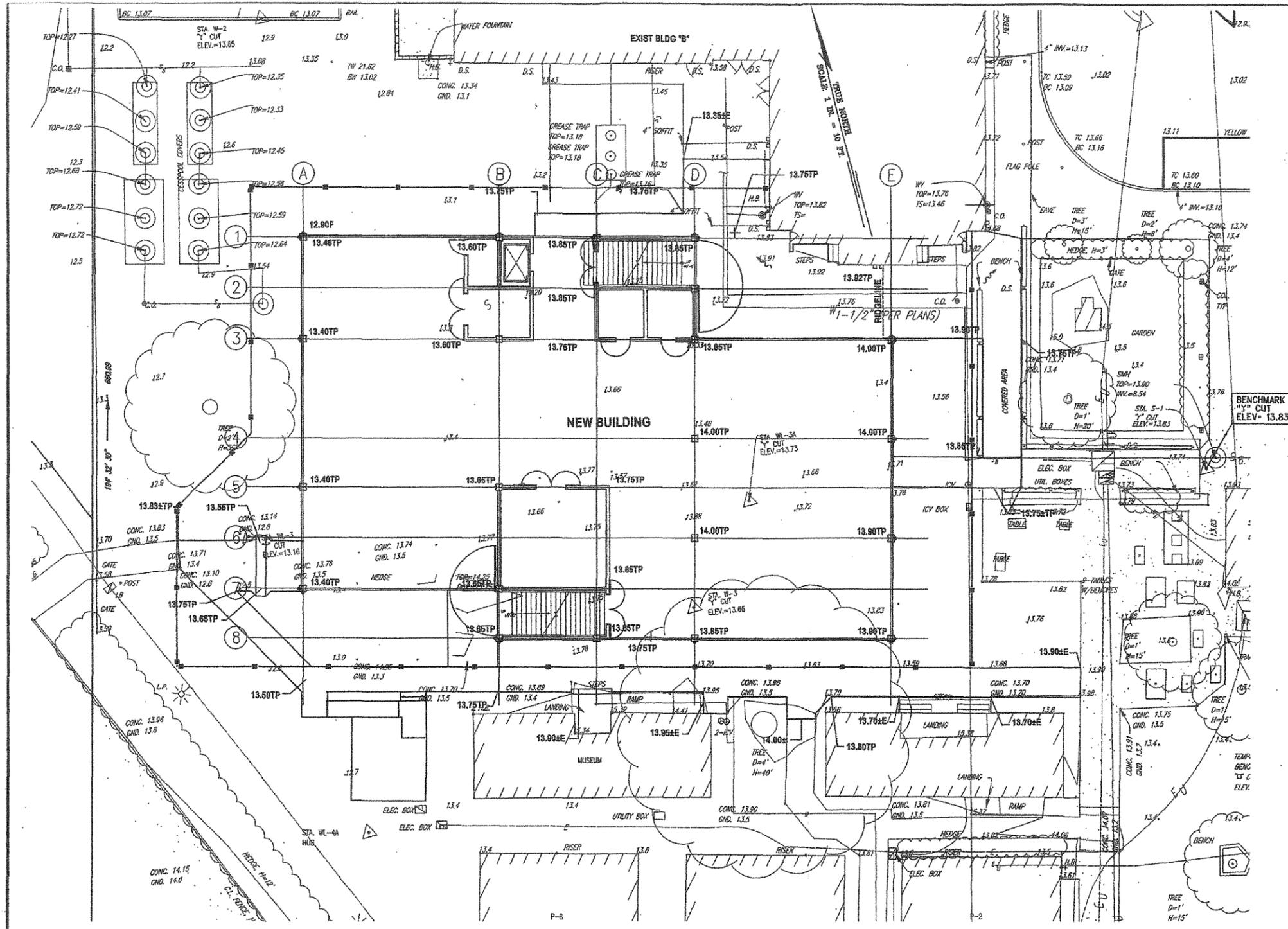


**SITE & UTILITY PLAN**  
SCALE: 1"= 10'

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

		DEPARTMENT OF EDUCATION STATE OF HAWAII	
		WAI'ALOA ELEMENTARY SCHOOL LIBRARY / MEDIA CENTER	
WAI'ALOA		OAHU	HAWAII
SITE AND UTILITY PLAN			
DESIGNED BY KHMA		CHECKED BY KHMA	DATE MAY 2010
DRAWN BY KHMA		APPROVED BY <i>AS</i>	SCALE AS NOTED
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>AS</i> KHMA & SHIROMA ENGINEERS, INC.		DOE JOB NO. Q76002-07	DRAWING NO. C1.03 SHEET 7 OF 12



**GRADING PLAN**  
SCALE: 1" = 10'

**EARTHWORK SUMMARY**

EXC= 16 C.Y.  
EMB= 30 C.Y.  
AREA TO BE GRADED= 0.13 AC  
AREA TO BE GRUBBED= 0.20 AC  
AREA DISTURBED= 0.48 AC

NOTE:  
QUANTITIES SHOWN ARE FOR GRADING PERMIT PURPOSES ONLY AND DO NOT INCLUDE TRENCH OR STRUCTURAL EXCAVATION AND BACKFILL. THE CONTRACTOR SHALL VERIFY ALL EARTHWORK QUANTITIES.

- GRUBBING NOTES**
- ALL GRUBBING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14 ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRUBBING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED, AND SOILS REPORT BY HIRATA & ASSOCIATES, INC., DATED APRIL 22, 2006.
  - NO CONTRACTOR SHALL PERFORM ANY GRUBBING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
  - THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL".
  - ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.
  - ALL GRUBBED AREAS SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER THE GRUBBING WORK HAS BEEN COMPLETED.
  - NO GRUBBING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P. PROVIDED SUCH GRUBBING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".
  - THE LIMITS OF THE AREA TO BE GRUBBED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRUBBING WORK.
  - ALL GRUBBING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 85, "WATER POLLUTION CONTROL", AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
  - WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY GRUBBING WORK IS INITIATED.
  - TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
  - IF THE GRUBBING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRUBBING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

**LEGEND**

10.4, 10.4±E	SPOT ELEVATION, EXISTING
10.10 P	SPOT ELEVATION, FINISH TOP PAVEMENT
10.10TP	SPOT ELEVATION, TOP PAVEMENT
11.0 F	SPOT ELEVATION, FINISH GROUND
[Hatched Box]	CONSTRUCTION ACCESS, 25'x20'± THICK, #2 ROCK
[Dashed Line]	LIMITS OF DISTURBED AREA
[Solid Line]	LIMITS OF GRUBBING
[Dotted Line]	LIMITS OF GRADING
[Line with Flag]	SILT FENCE
[Line with Arrow]	PROPERTY LINE

REVISION NO.	DATE	DESCRIPTION	APPROVED

CONRAD T. SHIROMA  
LICENSED PROFESSIONAL ENGINEER  
No. 4324-C  
HAWAII, U.S.A.

DEPARTMENT OF EDUCATION  
STATE OF HAWAII

WAI'ALUA ELEMENTARY SCHOOL  
LIBRARY / MEDIA CENTER

WAI'ALUA OAHU HAWAII

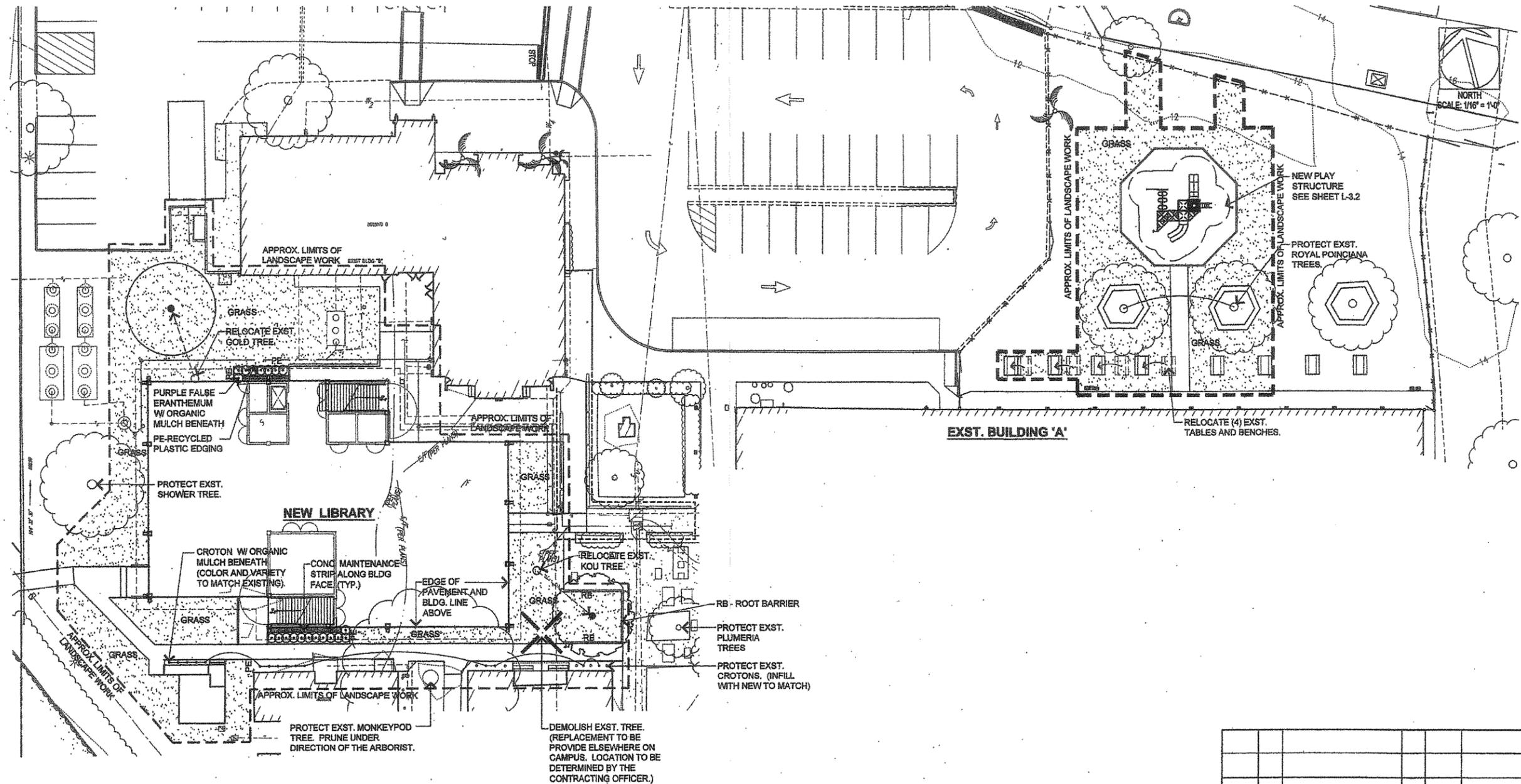
GRADING PLAN

DESIGNED BY: KHMA	CHECKED BY: KHMA	DATE: 076002-07	SHEET: C1.04
DRAWN BY: KHMA	APPROVED BY:	DATE:	SHEET: B
SCALE: AS NOTED	DATE: May 2010	of 10, 0175	

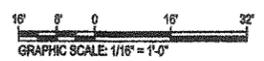
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

KIM & SHIROMA ENGINEERS, INC.

Figure 8



**LANDSCAPE PLANTING PLAN**  
SCALE: 1/16" = 1'-0"



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
					
<b>DEPARTMENT OF EDUCATION</b> STATE OF HAWAII <b>WAI'ALEA ELEMENTARY SCHOOL</b> LIBRARY / MEDIA CENTER WAI'ALEA OMAU HAWAII					
<b>LANDSCAPE PLANTING PLAN</b>					
LICENSE EXP. 04/30/2012 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>Michael J. Miyazaki</i>		DESIGNER/ARCHITECT/ENGINEER/ARCHITECTS DESIGNED BY: MA DRAWN BY: MA	CHECKED BY: MA APPROVED BY:	DOC. JOB NO. Q78002-07 DATE MAY 10 2009	DRAWING NO. <b>L-22</b> SHEET 17 OF 17 SHEETS
SCALE: AS NOTED					

Figure 9

**A. Existing Uses and Structures**

The present Waialua Elementary School has been at its current location since 1966. Prior to that year, the school was located on Hale'iwa Beach Road on the site of the existing Hale'iwa Elementary School. The school was renamed Hale'iwa Elementary School sometime after Waialua Elementary School opened its doors. The first school building, identified as Building "A" housed the school office, classrooms, and the library. In 1969, Building "C" was constructed with ground floor space for a library. The library has occupied the same space since that time.

The approximately 3,500 square foot facility houses a collection of approximately 14,000 books with several computer stations for research use and test taking. The existing library is open on school days from 7:30 A.M. to 2:50 P.M. On some weekends during the school year the facility is used for upper grade level "sleepovers".

Principal components comprising the school's facilities include four permanent structures (3 two-story buildings and one cafeteria / dining room) and nine portable classroom structures. Accessory facilities include off-street parking, a paved play court, play apparatus, custodial closets, storage closets, and electrical rooms. Unique to the school and fronting Building "A" is a Filipino cultural garden built by a local community organization. Called "Nipa Hut" the garden features a miniature plantation dwelling, stacked stones, and decorative plantings.

The site of the Library is on the western edge of the campus in a space bounded by the school cafeteria and dining room (Building "B"), Building "A", portable buildings, and tennis courts at Waialua District Park. The site was previously in open space with a play structure erected for recreational use.

For school year 2012-2013, the Department of Education (2014) reported a school enrolment of 564 students in grades Kindergarten to 6 including Special Education students. The design enrollment is 600 students.

Staffing at the school includes one principal, one vice-principal, clerical staff, teachers, resource persons, cafeteria staff, and custodial staff.

**B. Climate**

The climate of Waialua Town can be characterized as mild and dry throughout the year. Temperatures are indicative of Hawaii's semi-tropical climate with temperatures averaging 80<sup>o</sup> F with lows in the mid 60s during the winter months to highs near 90<sup>o</sup> F from May to September. Annual rainfall averages less than 40 inches (Atlas of Hawaii, 1998) with more than half the rainfall occurring during the winter months. The prevailing winds, as elsewhere in Hawaii, are the northeast trade winds. .

**C. Topography**

The site has been graded, paved, built on, and landscaped and grassed since 1972. Ground elevation ranges between 13 to 14 feet above mean sea level. Although relatively

flat, the terrain slopes slightly from south to north and towards the district park on the west and school buildings on the east.

#### **D. Soils**

The Soil Conservation Service (1972) soil map for the area identifies two soil types--- Waialua silty clay (WkA) and Ewa silty clay loam (EmA) --- over the entire property. Waialua clay is a shallow well-drained soil found on the smooth coastal plain. The surface layer is about 12 inches thick and the sub soil about 26 inches deep. This soil is moderately permeable, the erosion hazard is no more than slight, and runoff is slow.

Ewa clay is a shallow soil with a depth to limestone of about 20 to 50 inches. Runoff is very slow and the erosion hazard is no more than slight.

Extensive site improvements over time have blurred the distinctions between soil types. More than likely the surface soil is a mixture of the prevailing soil types, imported engineered fill, and imported topsoil.

#### **E. Land Type/ALISH**

The Land Study Bureau (1972) Detailed Land Classification maps and publications provide an analysis of lands and their suitability for agricultural production. A range of factors including soils, geology, topography, climate, and water resources were analyzed and a rating scheme for assessing overall agricultural productivity developed. Lands are classified from "A" to "E" according to their agricultural suitability with "A" indicating a master productivity rating of very good, and "E" indicating a rating of very poor for agricultural uses.

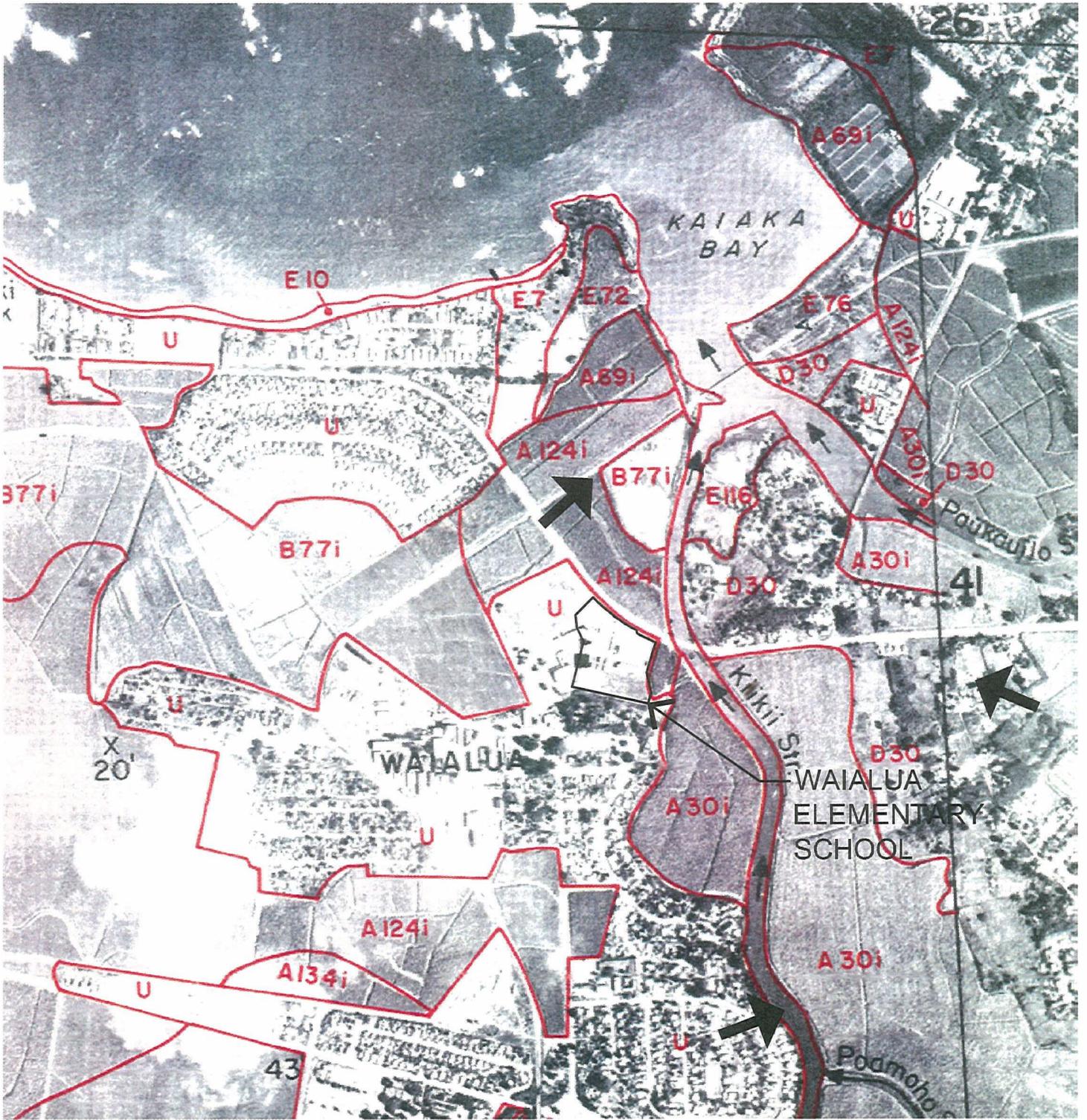
Waialua Elementary School is classified "U" for Urban (See Figure 10). Class "A" agricultural land is located directly to the east (along Ki'iki'i Stream) and north of the school across Waialua Beach Road.

The State Department of Agriculture (1977) has prepared Agricultural Lands of Importance to the State of Hawaii (ALISH) maps to determine the agricultural importance of agricultural property within the State of Hawaii. The ALISH maps identify and rate agriculture land into three categories of descending importance: Prime, Unique, and Other Important Agricultural Lands.

Waialua Elementary School is not located on agricultural land rated important to the State of Hawai'i (See Figure 11).

#### **F. Hydrology**

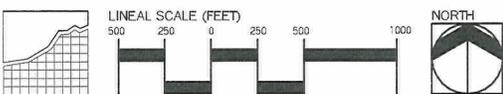
The southern portion of Hale'iwa is underlain by the Waialua basal water aquifer system and the northern half by the Kawailoa basal water aquifer system. The dividing line between both bodies is the deep valley fill of Anahulu Stream. Aquifer and groundwater information for the Waialua aquifer (Mink and Lau, 1990) is shown in Table 2.



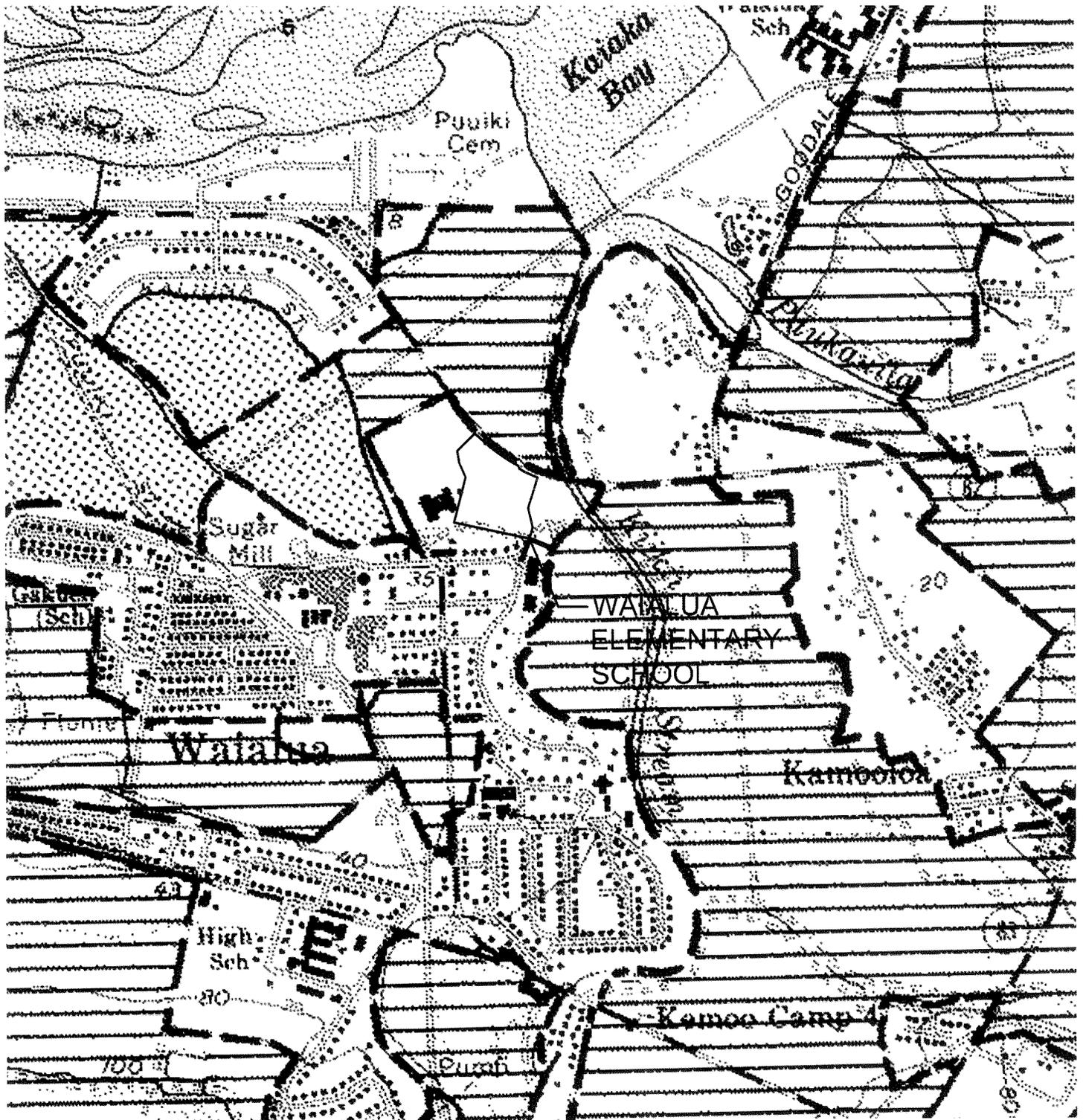
Source: Detailed Land Classification - Island of O'ahu  
 Land Study Bureau, University of Hawaii,  
 December 1967

**Legend**

- A Highly Productive Lands
  - B
  - C
  - D
  - E Lowest Productive Lands
- ↓



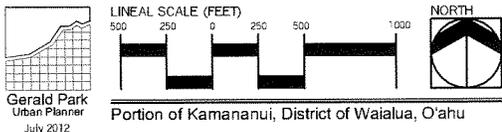
**Figure 10**  
 Detailed Land Classification  
 Waialua Elementary School Library / Media Center



Source: Department of Agriculture, State of Hawaii, 1977.

**Legend**

-  Prime Agricultural Land
-  Unique Agricultural Land
-  Other Important Agricultural Land



**Figure 11**  
 Agricultural Lands of Importance to the State of Hawaii  
 Waialua Elementary School Library / Media Center

The Waialua aquifer is characterized by an unconfined sedimentary aquifer above a confined dike aquifer. The sedimentary aquifer is currently being used, low in salinity, and highly vulnerable to contamination. The dike-confined aquifer also is used for drinking water, moderate in salinity, and has a moderate vulnerability to contamination. Both aquifers are ecologically important.

**Table 2. Aquifer Classification**

<b>Aquifer Code</b>	<b>30402116</b>	<b>30402121</b>
Island Code	3 - Oahu	3 - Oahu
Aquifer Sector	04 - North	04 - North
Aquifer system	02 - Waialua	02 - Waialua
Aquifer Type, hydrogeology	1 - Basal	1 - Basal
Aquifer Condition	1 - Unconfined	2 - Confined
Aquifer Type, geology	6 - Sedimentary	1 - Flank
<b>Status Code</b>	<b>12211</b>	<b>12312</b>
Developmental Stage	1 - Currently Used 2 - Ecologically Important	1 - Currently Used 2 - Ecologically Important
Utility		
Salinity (in mg/L Cl <sup>-</sup> )	2 - Low (250-1,000)	3 - Moderate (1,000 -5,000)
Uniqueness	1 - Irreplaceable	1 - Irreplaceable
Vulnerability to Contamination	1 - High	2 - Moderate

Source: Mink and Lau, 1990.

There are no public water sources (wells) on the premises or in the immediate vicinity of the property.

Ki'iki'i Stream, one of three major streams flowing through Waialua Town, passes to the east of the school. The two other streams are Kaukonahua which joins Ki'iki'i to the south near Farrington Highway and Paukaila which confluences with Ki'iki'i to the north before discharging into Kaiaka Bay. A parcel of land separates the school from the stream.

**G. Flood Hazard**

The Flood Insurance Rate Map (“FIRM”) places most of the school site in Flood Zone “X” which is defined as “areas determined to be outside the 0.2% annual chance flood plain (Federal Emergency Management Agency, 2011)”. The eastern edge of the school site however borders on Flood Zone “AE” which is defined as “Special Flood Hazard Zone Subject to Inundation by the .0% Annual Chance Flood; base flood elevation determined (Ibid)”. The base flood elevation for Zone AE is estimated at 13 to 15 feet above mean sea level. The flood zone adjoins the Ki'iki'i Stream Floodway which is known to overtop its banks and flood property adjoining the floodway.

Flood hazard areas and designations are shown in Figure 12.



## H. Flora

Monkeypod (*Samanea saman*), shower (*Cassia sp.*), kou (*Cordia subcordata*), plumeria (*plumeria sp.*), and gold (*Tabebuia donnell-smithii*) trees are arrayed around the perimeter of the library site. Several trees were protected in place during construction and several relocated within the project limits. The trees are common to Hawai'i and none are proposed for rare, threatened, or endangered status.

## I. Archaeology

Construction of buildings, driveways and parking areas, landscaping (trees and grass), and school facilities in general have removed surface archaeological features if they previously were associated with the site. No evidence of archaeological or cultural features was observed on the ground surface.

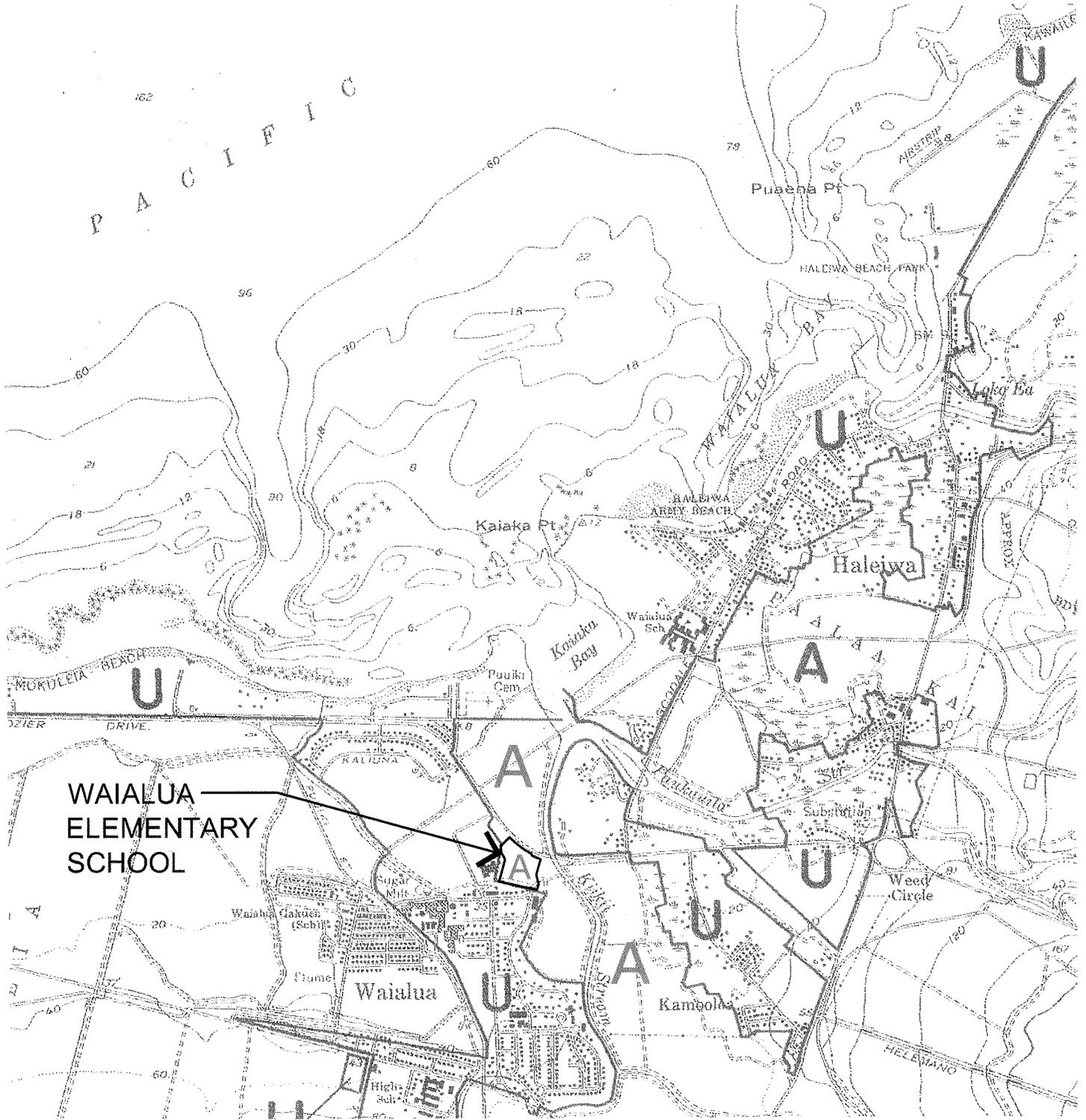
## J. Land Use Controls

The State Land Use Commission under the authority of Chapter 205, Hawai'i Revised Statutes classifies all land in the State of Hawaii as Agricultural, Conservation, Rural, and Urban. Uses in the Agricultural District are regulated by the Land Use Commission; uses in the Conservation District by the Board of Land and Natural Resources, uses in the Rural District by the Land Use Commission, and uses in the Urban District by the respective county government. The zoning powers of the respective counties also govern uses in other than the Conservation District.

- Most developed areas in Waialua Town are classified Urban by the State Land Use Commission. As shown on Figure 13, Waialua Elementary School is classified Agricultural and bounded by Urban districts on the west and south. Public institutions and buildings, such as public schools, are not expressly allowed in the State Agricultural district unless necessary for agricultural practices (Chapter 205-4.5 (5)). A non-agricultural uses such as a public school is not strictly prohibited in the Agricultural district but can be allowed by Special Permit. An alternative to a Special Permit in this case is to seek to amend the land use district from the Agricultural to the Urban district.

Although classified Agricultural, the use of land comprising Waialua Elementary School is under the authority of the City and County of Honolulu and its applicable plans, ordinances, and regulations. City land use policies and controls for O'ahu are vertically aligned or tiered for managing growth and land uses beginning with the General Plan for the City and County of Honolulu ("General Plan"), community development plans and sustainable community plans, and zoning. Special districts and special management area rules provide supplementary controls for defined areas where man-made features and natural resources should be protected and managed.

- The General Plan for the City and County of Honolulu ("General Plan") is the first tier. It sets forth broad objectives and policies in eleven functional areas such as Economic Activity, Natural Environment, Energy, Physical Development and Urban Design, and Public Safety. The Population component and its objectives and policies are key to managing growth. The component establishes a population distribution pattern for eight geographic regions comprising the county. Each region has an upper and lower limit (percentage) of the island wide population for a

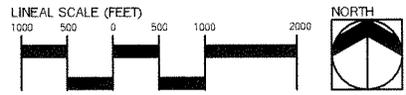


Source: State Land Use Commission, Oahu O-4, Haleiwa Quad.

**Legend**

**State Land Use**

- U Urban
- A Agricultural



Portion of Kamanuani, District of Waialua, O'ahu

**Figure 13**  
**State Land Use Districts**  
**Waialua Elementary School Library / Media Center**

targeted year (currently 2025). The general plan also includes General Plan Development Pattern map depicting the eight districts and the desired development pattern for and within the respective district.

Waialua is part of the North Shore region of the island and the development pattern is to maintain developed areas within the district as “Rural”.

Development Plans or Sustainable Communities Plans prepared for the eight geographic regions in the County comprise the second tier. Although encompassing eight regions where each area’s values, vision, and policies for accommodating growth are different, the plans collectively support the General Plan. The North Shore Sustainable Communities Plan (2005, 2011) 1) describes the role of the North Shore in Oahu's development pattern, 2) articulates a vision for the North Shore's future, 3) prescribes policies, planning principles, and guidelines for land use and infrastructure, and 4) identifies measures for implementing the plan.

The North Shore SCP reaffirms the Rural designation of the General Plan. The Plan acknowledges that growth will take place and establishes a Community Growth Boundary spanning the entire district. The boundary identifies areas where growth and infill can occur (inside the boundary) and areas where agriculture, open space, and natural resources should be maintained and preserved (areas outside the boundary).

- Waialua Elementary School and most of Waialua Town are inside the Community Growth Boundary.

The Plan identifies the area centered about Goodale Avenue and Kealohanui Street as the town “core” and designates it Country Town. This designation is intended to maintain a rural “small town” character and to promote compact town development (DPP, 2011).

This designation is described as a type of commercial area characterized by compactness, small scale, and mix of different land uses located in close proximity to each other. The Country Town designation would allow a mix of commercial, residential, and compatible industrial uses (such as small product or clothing manufacturing and assembly) with policies and guidelines to ensure that the scale and character of future renovation, redevelopment or other new construction reflects the towns' historical character and the region's rural landscape.

- Waialua Elementary School is not located within the town “core”.

The Plan also posits land use policies and guidelines applicable to all public schools in the North Shore district. Policies for this project are:

- Provide and maintain quality school facilities that serve the needs of the community
- Integrate school facilities with other community uses.

Zoning comprises the third tier of the City’s land use management system. As shown on zoning maps for the county, land is zoned by use and density (for example AG-1 Restricted Agriculture with a minimum lot size of 5 acres). The Land Use Ordinance (which incorporates the zoning maps) prescribes the types of uses permitted in zoning districts and associated development standards. The LUO also establishes

requirements for parking, specific use standards, signs, development in flood districts and special districts, and administration and enforcement procedures.

- The school property is zoned AG-1 Restricted Agriculture (See Figure 14). Public uses and structures are permitted in the zoning district pursuant to Article 3, Table 21.3 Master Use Table of the Land Use Ordinance, City and County of Honolulu.

Waiialua Elementary School is also located in the County delineated Special Management Area (See Figure 15) The Special Management Area (“SMA”) is defined as land extending inland from the shoreline supporting valuable coastal resources that need to be preserved, protected, and where possible restored. Development in the SMA is regulated by the City and County of Honolulu through Chapter 25, Special Management Area, Revised Ordinances of Honolulu.

- The school is located within the Special Management Area. Based on the estimated construction cost of \$3.5 million a SMA Use Permit will be required.

The Haleiwa Special District was established in 1985 and codified in the LUO as Article 9, Section 21-9.90. The special district comprises the geographic area from Weed Circle on the south to Haleiwa Beach Park on the north. In general the ordinance identifies significant public views and establishes design controls for building heights, yards, landscaping, off-street parking, and architectural character for Hale‘iwa Town.

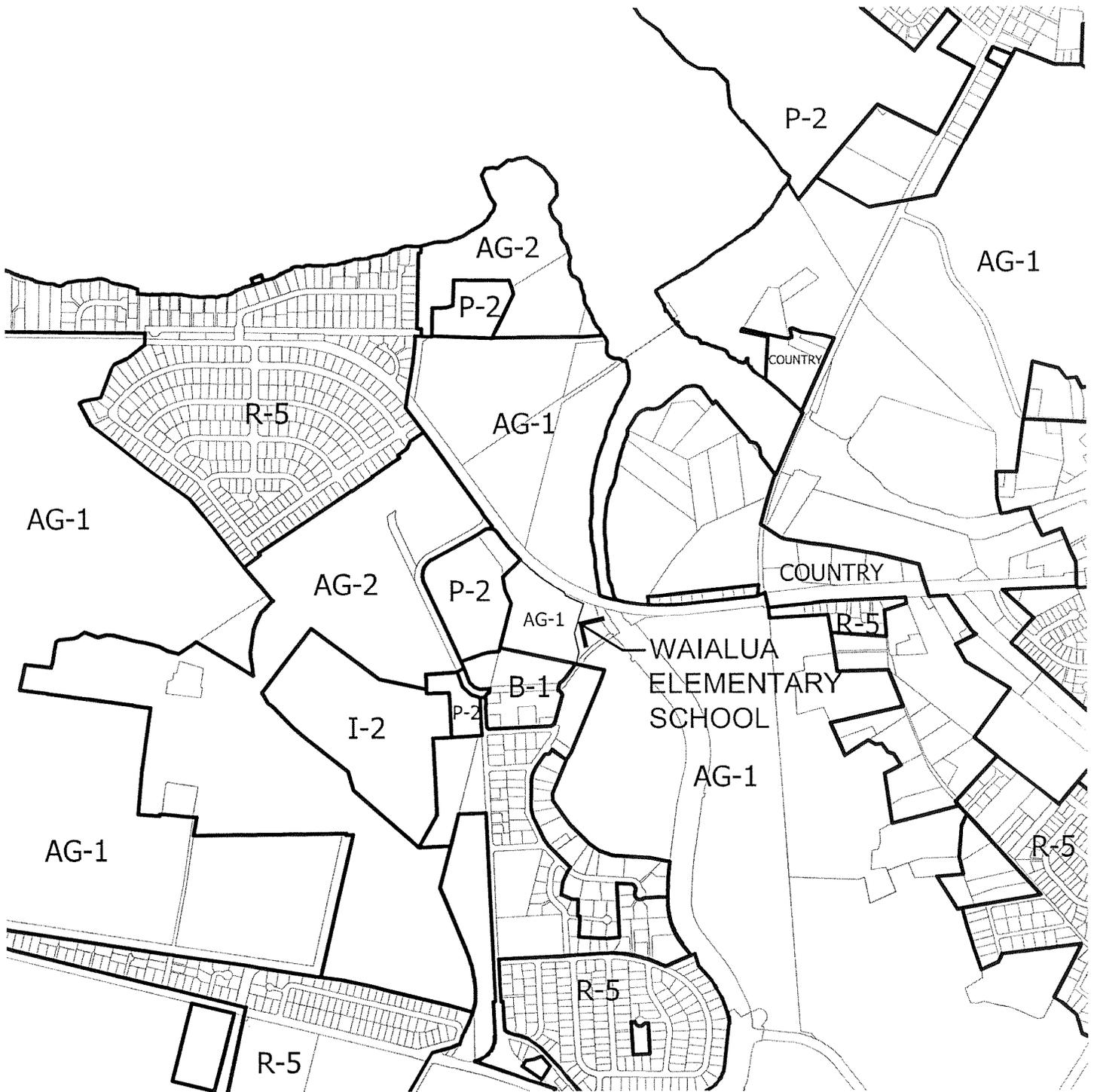
- The town of Waiialua is outside the special district boundary and special district controls do not apply.

Prepared in 2005, the Waiialua Town Master Plan (Group 70 International) prescribes a long-term process for revitalizing Waiialua Town through broad economic initiatives and social and aesthetic actions. The Plan talks about a Waiialua Town Center generally bounded by and including the Waiialua Shopping Center, the old sugar mill, the community park with the bandstand, and activities along Kealohanui Street. Revitalizing the town core is essential to attracting economic activities and some increase in population.

Covering an area larger than the Waiialua Town Center Plan, the Waiialua Area Plan features a strong but diverse residential component. Alternative residential strategies are proposed around the Town Center to include residential infill in existing residential areas, rural residential uses, mixed use residential, and agriculture clusters (farm lots with clustered housing). A visitor lodge also is proposed on the shoreline at Kaiaka Bay.

- Waiialua Elementary School is beyond the boundaries of and not expressly discussed in the Town Center Plan. The Plan, however, proposes locating several government / civic facilities in the vicinity of Waiialua District Park and Goodale Avenue. The facilities include a new fire station, public library and community center, and off-street parking. Off-street parking also is proposed behind the school generally parallel with Kealohanui Street. The school’s location would help to solidify the concept to co-locate government and community functions at this location.

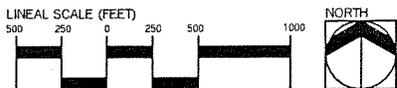
Unlike State and County land use controls described above, the Waiialua Town Master Plan does not have the force of law.



Source: Hawaii Statewide GIS Program Website & City & County of Honolulu (DPP) Website

**Legend**

R-5	RESIDENTIAL (5,000 SF. LOT MINIMUM)	COUNTRY	COUNTRY DISTRICT
B-1	NEIGHBORHOOD BUSINESS DISTRICT	P-2	GENERAL PRESERVATION
AG-1	RESTRICTED AGRICULTURAL DISTRICT		
AG-2	GENERAL AGRICULTURAL DISTRICT		



Portion of Kamananui, District of Waialua, O'ahu

**Figure 14**  
**Zoning**  
**Waialua Elementary School Library / Media Center**

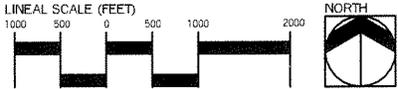


Source: Hawaii Statewide GIS Program, <http://hawaii.gov/dbedt/gis/download.htm>

**Legend**

 Special Mangement Area

Gerald Park  
Urban Planner  
July 2012



Portion of Kamanui, District of Waialua, O'ahu

**Figure 15**  
Special Mangement Area  
Waialua Elementary School Library / Media Center

## **K. Public Facilities and Services**

Waiialua Elementary School fronts on approximately 250 feet of Waiialua Beach Road. The two-lane, two-way, undivided, paved road lies within an 80-foot right-of-way. The posted speed limit is 25 mph. Street lights on the *makai* side of the road illuminate the roadway.

The road is without curbs and gutters but features a 10-foot wide walkway within the *mauka* side of the right-of-way. The paved asphalt concrete walkway is wide enough to be shared by pedestrians, joggers, and bikers. In general, the walkway extends between Goodale Avenue and Ki'iki'i Stream.

Two driveways provide one-way ingress / egress into the school's parking lot from Waiialua Beach Road. The inbound driveway is primarily a right turn only into the school parking lot and shares a bus lane taper for a bus shelter fronting the school. A left turn stacking lane or deceleration lane into the parking lot is not striped on Waiialua Beach Road. A second driveway with left and right turn lanes is for outbound traffic only. A third driveway on the east end of the school provides access to buildings at the rear of the school.

The Route 76 bus provides public transportation between Haleiwa and Waiialua Towns. A covered bus shelter is located in front of the school for eastbound passengers and a bus bench is located opposite the shelter for westbound passengers.

Water is available from an existing 12" Board of Water Supply main in Waiialua Beach Road. A section of the water line lies within a 10-foot wide easement crossing the northeastern corner of Waiialua District Park. An application for water connection will be submitted to the Board of Water Supply during the design stage of the project.

There is no municipal sewer system serving the town of Waiialua. Wastewater is discharged into two separate individual wastewater treatment systems. One system is located near the site of the library and the other at the rear of the school near Building "D". Estimates of average daily wastewater flow are not available.

Electrical and telephone service are provided from the overhead distribution system on the *makai* side of Waiialua Beach Road. Electrical distribution lines within the school are placed underground.

Police protection originates from the Wahiawā Police Station in the town of Wahiawā about 10 miles to the southwest. Fire protection is provided from the Hale'iwa Fire Station located about one mile away on Hale'iwa Beach Road.

Waiialua District Park, a city park, adjoins Waiialua Elementary School on its western side. The 12.8 acre park provides facilities for indoor and outdoor recreation activities. A partial list of facilities include a swimming pool and training pool, recreation building/gymnasium, 4 tennis courts, a baseball field, a softball field, a basketball/volleyball court and open fields. Most of the outdoor facilities are lighted for night use.

Waiialua Elementary School students have been observed recreating on an open field during recess. The open field is beyond right field of the baseball field.

### 3

## SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

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The scope of the project was discussed with the consulting architect, members of the design team, and staff of the Facilities Development Branch, Department of Education. State and County agencies were contacted for information relative to their areas of expertise. Time was spent in the field noting post-construction conditions of the building site and in the vicinity of the school.

### **A. Short-term Impacts**

Construction of the Waiialua Elementary School Library / Media Center has been completed. Because the facility is already a standing structure, short-term construction related actions and subsequent environmental impacts associated directly with its construction are considered moot.

Although construction of the building has been completed, the Honolulu Fire Department and Hawaiian Electric Company requested additional improvements for their respective services. Potential impacts resulting from these two improvements are discussed below.

Construction of a fire service line will generate noise and dust along the planned route. Portions of a lawn and asphalt pavement within the parking lot will be excavated. The lawn area will be fenced around the construction site and closed for use for the duration of construction.

Construction will temporarily affect ambient air quality. Site work activities will raise fugitive dust that can settle in adjoining areas. Site work will be limited to the area of new construction structure this should aid in mitigating dust generation and controlling dust. The general contractor will employ on and off-site dust control measures to prevent work site and construction equipment and activities from becoming significant dust generators. Control measures shall comply with Chapter 60.1, Air Pollution Control, Title 11, State Department of Health (and revisions thereto).

Most construction equipment and vehicles are diesel powered and emit exhaust emissions typically high in nitrogen dioxide and low in carbon monoxide. The Federal and State nitrogen dioxide standard ---100mg/m<sup>3</sup> per annum---which is an annual standard, is not likely to be exceeded during construction. Carbon dioxide emissions should be less than that generated by automobile traffic on adjoining streets. Aldehyde odors from diesel equipment may be detected but should be dispersed by the prevailing winds.

Like fugitive dust, construction noise cannot be avoided. Exposure to noise will vary by construction phase, the duration of each phase, and the type of equipment used during the different phases. Maximum sound levels in the range of 82-96 db(A) measured at 50 feet from the source would be generated by heavy machinery during site work. After site work is completed, reductions in sound levels, frequency, and duration can be expected.

Schools are considered noise sensitive areas. Building "A", a two-story permanent classroom building, is located about 100 feet from the fire service line construction route and the school cafeteria about 20 feet.. Noise will be audible inside the classroom building and the school's administrative office also located in Building "A" and the cafeteria.

Building "A" is constructed of cement masonry unit walls which can effectively aid in noise mitigation but open (or closed) wood louver windows facing the work site will allow outside noise into the classroom. The cafeteria also is constructed of cement masonry unit walls and open windows and doors also will allow outside noise into interior areas. Construction noise will be audible inside the cafeteria but should be "masked" by kitchen related noise and student sounds during meals.

Construction of the fire service line will proceed along a pre-determined route so that noise will not be generated at a single location. In addition, a \_\_\_ month construction period should limit noise to a short period of time.

Community Noise Control regulations (Chapter 46 Noise Control for Oahu) establish maximum permissible sound levels for construction activities occurring within "acoustical" zoning districts. Based on the agricultural zoning for the site, the project is classified as a Class C zoning district for noise control purposes. The maximum permissible daytime (7 a.m. to 10 p.m.) sound level in the district is 70 dBA during day and night hours for stationary noise sources and equipment related to construction (Chapter 46, Community Noise Control, 1996). Any noise source that emits noise levels in excess of the maximum permissible sound levels cannot be operated without first obtaining a noise permit from the State Department of Health. Although the permit does not attenuate noise per se it regulates the hours during which excessive noise is allowed. The contractor will be responsible for obtaining and complying with conditions attached to the permit.

The use of parking stalls along the fire service line route may be temporarily suspended and alternate parking provided elsewhere until construction through the parking lot is completed. The contractor will consult with Department of Education staff and school administrators on how to best mitigate circulation and parking impacts during school hours. Access to/from Kamehameha Highway will be maintained at all times and a flagperson posted to marshal vehicles around the construction trench. Steel plates will be placed over excavated areas during non-construction hours for access and safety purposes. To the extent practical working hours will be scheduled to avoid student drop off and pick-up times over the school week. A time / work schedule will be developed in consultation with school administrators. Work may be scheduled when school is not in session as another mitigating measure.

Although limited in area, site work for the fire line will expose soil thus creating opportunities for erosion (fugitive dust and suspended sediment in construction related runoff). Earthwork quantities are estimated at 160 cubic yards of excavation and 98 cubic yards of trench backfill. Trenching and stockpiling excavated or imported material will be performed in accordance with Chapter 14, Article 14 of the Revised Ordinances of Honolulu, 1990, as amended. Furthermore the work shall be done in accordance with the Rules Relating to Soil Erosion Standards and Guidelines.

Best Management Practices (BMPS) for erosion and storm drainage control during construction will be incorporated into grading plans. Examples of BMPs include but are not limited to erecting silt fences around the work site, placing absorbent socks at paved areas to minimize petroleum products from flowing offsite, and constructing stabilized construction

access pads at the parking lot driveways. The contractor may implement other BMPs based on field conditions and their experience in working with similar work sites.

Site work will not exceed one acre thus a NPDES General Permit Authorizing Discharges of Storm Water Associated with Construction Activity will not be required from the State Department of Health.

Best Management Practices will be implemented pursuant to City and County of Honolulu Rules Relating to Storm Drainage Standards, Section II, Storm Water Quality.

Areas disturbed by construction will be restored to pre-construction conditions or better.

Construction vehicles hauling workers and material will contribute to traffic on roads leading to the school and on Waialua Beach Road fronting the school. Material deliveries will be scheduled to minimize impacts on local traffic. Material unloading will occur on-site so as not to interfere with traffic circulation on Waialua Beach Road.

## **B. Long-term Impacts**

The library will replace an undersized library that has served Waialua Elementary School *circa* 1969. The new facility will allow library staff to expand the range of library functions and improve conditions for students and staff. Anticipated benefits include:

- Increase the collection for students and faculty.
- Expand curriculum materials for faculty.
- Expand learning opportunities for students.
- Provide comfortable, air conditioned interior space.
- Provide a larger work area and storage space for library materials.
- Provide a media wing for video and media production.

The Library / Media Center will provide students, teachers, and parents a modern, spacious learning environment that is more than a repository for grade level books, associated reading material, and a place for reading and research. The existing library serves as a gathering place for upper grade students on selected weekends (sleepovers), a place for on line test-taking, storytelling, and tutoring. These activities are expected to continue and new activities introduced where the library functions as a focal place for the school.

Back of house functions for receiving and cataloguing materials, work areas, storage space, and a librarian's office will benefit staff and overall library operations.

The Media Center will engage students in learning computer skills and introduce students to video and multi-media production. The dual curricula and "hands-on" training can provide elementary students basic skills that can be applied within the school and community. With knowledge of basic computing and multi-media skills students can expand their interest in said curricula at middle school, high school, and post high school levels.

The structure will be entire enclosed and air conditioned to help reduce the introduction of outside noise. Air conditioning motors, compressors, and chillers will be placed on the ground level in an enclosed mechanical room for noise attenuation. Machinery sounds may

be faintly audible in “back of house areas” on the second level above the mechanical room but should neither adversely interfere with nor disturb activities conducted therein.

Associated with these anticipated benefits are costs associated with operating and maintaining a larger facility. Apart from a full-time librarian, the need for additional staff will be determined at a later time. Student helpers and community / parent volunteers can aid in reducing operating costs.

Energy costs may increase because the building will be air conditioned. In addition to providing for the comfort of students and staff, air conditioning will dehumidify the building to reduce mold and mildew from forming thus prolonging the life of the collection and electrical and electronic equipment.

Increases in energy costs can be mitigated by incorporating natural lighting, energy efficient light fixtures, and high-efficiency air conditioning units into the design of the structure and its utility systems. Water use will be reduced by installing low flow plumbing systems.

An increase in average daily wastewater flow is not anticipated only the source of flow. Wastewater from the entire school discharges into wastewater systems at two separate on-campus locations. A wastewater line from Building “B” (where the existing library is located) connects to the IWS near the new library building. Based on maximum occupancy for the library and media center average daily flow is estimated at 1,540 gallons per day. The IWS near the new library will receive the discharge and continue to receive flows from facilities connected to the IWS. In the long-term, increases in wastewater flow will depend on increases in student enrollment.

A private hauler will collect and transport solid waste to approved disposal facilities. Solid waste quantities generated by administrative and library functions have not been determined.

There are no identified significant views or view planes to and from the campus. The entire library will not be readily visible from Waiialua Beach Road and Goodale Avenue as the cafeteria building will obstruct most views of the ground floor and sections of the second floor. The roof will be visible as it rises above the cafeteria building. Trees on the west side of the school will partially screen the library from the District Park, Goodale Avenue and the eastbound approach on Waiialua Beach Road. Over time, the library will blend architecturally with the other buildings and facilities as part of the built-up campus setting.

The upper floor and roof will be visible from outdoor recreation facilities and at certain locations at Waiialua District Park. The structure should neither interfere with play nor cast shadows on the courts.

The new Library / Media Center will not affect existing City and County of Honolulu land use controls for the property and school. School use is a permitted use under the current County zoning although the property is zoned AG-1 Restricted Agriculture. The property is also located in the Special Management Area and a Special Management Area Permit will be required albeit post-construction.

Waiialua Elementary School, however, is not an agricultural use and thus not permitted in the State land use agricultural district. Since construction of the school commenced in 1966, the land use district boundary was neither amended nor a Special Permit sought to

allow for school use. The Department of Education will request a land use district boundary amendment to the Urban district for the entire property to correct this oversight. In the long-term a land use district boundary amendment will bring the use of the property for a public school consistent with applicable land use controls.

**A. No Action**

A No Action alternative is moot at this time.

**B. Alternative Locations**

An Alternative Location for the library is moot at this time.

Permits required for the project and responsible authorities are identified below. Additional permits and approvals may be required depending on final construction plans.

**City and County of Honolulu**Honolulu City Council

Special Management Area Permit  
\*State Land Use District Boundary Amendment

Honolulu Planning Commission

State Special Use Permit

Department of Planning and Permitting

Grubbing, Grading, and Stockpiling Permit  
Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work  
Certificate of Occupancy  
Waiver (Building Height)

\* Note: The Department of Education may request a State Land Use District Boundary Amendment from the Agricultural to the Urban District for the Waialua Elementary School property. The Honolulu City Council is the approving authority for a land use district boundary amendment of less than 15 acres.

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## AGENCIES AND ORGANIZATIONS TO BE CONSULTED

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### State of Hawai'i

- Department of Health
- Environmental Planning Office
- Department of Land and Natural Resources
- Historic Preservation Division

### City and County of Honolulu

- Board of Water Supply
- Department of Parks and Recreation
- Department of Planning and Permitting
- Police Department
- Fire Department

### Others

- Hawaiian Electric Company, Inc.
- North Shore Neighborhood Board No. 27
- Waialua Community Association
- Waialua Public Library (Placement)

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

**1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;**

Natural and cultural resources will not be “lost” since none are present on the building site.

**2) Curtails the range of beneficial uses of the environment;**

The project does not curtail the beneficial uses of the environment.

**3) Conflicts with the state’s long-term environmental policies or goals and guidelines as expressed in chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;**

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

**4) Substantially affects the economic or social welfare of the community or State;**

The project will not substantially affect the economic or social welfare of the State. In the long-term the new library / media center will provide a facility to foster student learning, expose students to new and innovative curricula, and promote education in general.

**5) Substantially affects public health;**

Public health will not be adversely affected during construction. Short-term environmental impacts in the form of fugitive dust, noise from construction equipment, and minor erosion can be expected. These impacts will be mitigated by measures described in this Assessment and measures, such as BMPs for erosion control, to be submitted with construction plans and documents.

**6) Involves substantial secondary impacts, such as population changes or effects on public facilities;**

Population changes and effects on public facilities are not anticipated as a result of the project..

**7) Involves a substantial degradation of environmental quality;**

Because the library / media center already has been constructed, substantial degradation of environmental quality is not anticipated.

**8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;**

Construction and long-term facility use will not result in significant adverse short and long-term environmental impacts or involve a commitment for a larger action.

**9) Substantially affects a rare, threatened or endangered species, or its habitat;**

Rare, threatened or endangered flora and fauna are not found on the building site or on the school grounds.

**10) Detrimentially affects air or water quality or ambient noise levels;**

Ambient air quality will be affected by fugitive dust and combustion emissions during construction but can be controlled by measures stipulated in this Assessment. Construction noise may be pronounced during site preparation work but should diminish once the structural improvements are completed. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health.

Erosion control measures will be prescribed in grading plans and best management practices prepared for the project.

**11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.**

The site of the library is not located in an environmentally sensitive area.

**12) Substantially affects scenic vistas and view planes identified in county or state plans or studies, or,**

Waiialua Elementary School is neither identified as a visual resource nor located within scenic vistas or view planes identified in county or state plans.

**13) Requires substantial energy consumption.**

Energy will be required for the ventilation system and interior lighting.

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